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TEST PAPERS IN ARITHMETIC



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PREFACE

This book is the second of a series of three books of Test Papers designed to give pupils of the ages ten to twelve practice in answering questions in English Language, Arithmetic and Intelligence.

The aims of such Tests are to provide material for gauging the ability and progress of pupils from time to time, to help round off a teacher's instruction, and, at the same time, to afford plenty of opportunity to pupils for initiative and expression.

This book will be found most valuable for use in conjunction with text-books of instruction. For those teachers who prefer to work without text-books, the Tests can form the skeletons of their lessons.

The syllabus in Arithmetic is confined in Section A to simple computation, involving a knowledge of the Four Rules, Tables, Weights and Measures, and the Monetary System. Section B consists of simple problems based on the knowledge contained in Section A.

The Tests have been set out formally to suit those who wish to use them as such, but teachers will readily adopt their own methods in handling the material, and it is hoped that they will find much here that is helpful and stimulating.

There is a combined-subject Book of Answers, with a suggested mark-scheme, published separately.

J. M. C.

Kidderminster

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1. Add together 346, 13, 56710 and 4662.
2. 3471×13 .
3. $14122 \div 23$.
4. Subtract 4567 from 7783.
5. Add $13\frac{3}{4}$ to $37\frac{7}{8}$.
6. Divide 5 galls. 2 quarts 1 pint by 3.
7. Subtract $3\frac{2}{3}$ from $8\frac{5}{9}$.
8. Find the cost of 24 articles at 1s. 3d. each.
9. What is the cost of $2\frac{1}{2}$ pints of oil at 3s. 4d. a gallon?
10. Multiply $\frac{5}{12}$ by $\frac{1}{3}$.
11. Divide £2 18s. 1d. by 17.
12. Subtract £17 6s. 5d. from £25 17s. 4d.
13. $12 \div \frac{1}{3}$.



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14. Reduce 44 yds. 2 ft. 5 ins. to inches.
15. Express $\frac{1}{4}$ as a decimal fraction.
16. Multiply $\cdot 3$ by 50.
17. Find the cost of 2 tons of coal at 3s. 4d. a cwt.
18. If a yard of cloth costs 3s. 0d., what would be the cost of a piece whose length is 1 ft. 8 ins.?
19. To £1 17s. $3\frac{1}{2}$ d. add 5s. $9\frac{1}{2}$ d.
20. Add 25% of 8 to 75% of 16.
21. $1\cdot 01 + 2\cdot 39$.
22. What is $\cdot 5$ of half a crown?
23. A man sold 24 apples to a woman and 5 to a boy. How many more apples had the woman than the boy?
24. $6\cdot 72 \div 3\cdot 2$.
25. From the difference between 617 and 309 take 54.
26. From twice twenty take three times three.
27. $1\frac{1}{4} \times \frac{4}{5}$.
28. How many fourpences are there in 3s. 4d.?
29. $3456 + 101 + 876$.
30. $8790 - 543$.

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ARITHMETIC B*One hour*

1. A workman is paid at the rate of 1s. 4d. an hour, and works 44 hours a week. If he works more than 44 hours, he is paid half as much again. One week his earnings came to £3 10s. 8d. How many hours extra had he worked that week?
2. It is now 12 a.m. on Monday. I set my watch right by the wireless, but I know that it will gain 2 minutes every four hours. What time will my watch show at midnight by the wireless on Tuesday?
3. How many pieces of cardboard, each measuring 6 in. by 3 in., can be cut from a sheet measuring 1 ft. 6 in. by 1 ft. 0 in.?
4. A man has 6 cwt. of potatoes for sale. He sells 392 lbs. at 8 lbs. for 7d., and the rest at 7 lb. for 6d. How much does he get altogether for his potatoes?
5. Mary and Betty divide 11s. 8d. so that Mary gets three times as much as Betty. How much does each get?
6. How many numbers of two figures are there which are exactly divisible by 13?
7. A legacy of £806 was to be divided up among 64 people. There were 22 men who were to receive £15 each. £336 was to be divided equally among the women so that each should receive £12. The remainder was to be given to

the children in equal portions. How much did each of the children get?

8. I am offered a bicycle for £1 down and 1s. 4d. a week for a year. Later, I am offered the same bicycle for 10s. down and 11d. a week for 2 years. Which is the better offer, and how much would I save by accepting it?
9. Tom can swim 100 yards in 160 seconds, but it takes Henry 200 seconds to do the same length. By what distance would Tom win in a race of 100 yards?
10. A woman bought 26 ft. of tape at 6d. a yard. She found she had 5s. 8d. left in her purse. How much had she in her purse at first?
11. A certain liquid is sold at $9\frac{1}{2}$ d. a pint, but at 6s. 0d. a gallon if a gallon tin is bought. How much will I save if I buy 8 gallons in tins instead of by the pint?
12. If a man's stride is 32 inches and he takes 72 strides in a minute, how far does he walk in one hour? Give your answer in miles and yards.
13. A bag of money contains £49 1s. in florins and half-crowns. If there are 203 florins, how many half-crowns are there?
14. $\frac{3}{4}$ of $\frac{8}{9}$ of a house is worth £1,260. What is $\frac{5}{6}$ of $\frac{9}{10}$ of it worth?
15. If 15 oxen plough 200 acres in 48 days, how long will 80 oxen take to do the same?

ARITHMETIC A

Half an hour

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1. How many pennies are there in £1 7s. 3d.?
2. Reduce 1 ton 15 cwts. 3 qrs. to quarters.
3. $17645 + 908 - 324$.
4. $11\frac{1}{4} - 8\frac{7}{8} + 3\frac{1}{2}$.
5. What is 17×543 ?
6. How many hours are there in 3 weeks 2 days?
7. £5 4s. 0d. + £6 7s. 9d. + £2 18s. 11d.
8. $110 \div 2\frac{3}{4}$.
9. £3 6s. 8d. \times 12.
10. Subtract 1 mile 3 furlongs from 3 miles 2 furlongs and give your answer in miles and a fraction of a mile.
11. Express $\cdot 34$ and $\cdot 76$ as vulgar fractions.
12. What change would I have out of a guinea if I bought 12 articles at 4 for 1s. $6\frac{1}{2}$ d.?

13. How many minutes are there between 10.35 a.m. and 1.24 p.m.?
14. How many times are 3 inches contained in 6 yards?
15. 0.1×2.45 .
16. Divide 4743 by 31.
17. A man has an area containing 7 fields. Each field has seven rows of trees and each row seven trees. How many trees does the man own?
18. Four tourists spend £21 12s. 0d. in 9 days. What does each tourist spend per day on average?
19. £17 3s. 0d. $\div 7$.
20. $6 \times 23 \div 3$.
21. Add together one thousand and two, six hundred and five, and twenty.
22. What is 80% of 500?
23. $0.34 + 1.01 + 3.6$.
24. $4\frac{1}{4} \times \frac{4}{5}$.
25. 246 is the difference between 120 and another number. What is the other number?
26. $3.12 \div 24$.
27. How many half-crowns are there in ten pounds?
28. $21 \times 3 + 7 - 18$.
29. $7654 - 987$.
30. $5643 + 321 + 654$.

ARITHMETIC B

One hour

1. A man receives £500 a year for his salary, and out of it pays £93 a year for board. He pays £40 yearly for clothing, and £65 half-yearly for income tax. How much does he save in 6 years?
2. How many pounds of sugar at 4d. a pound must be given for 488 lbs. of coffee at 1s. a pound?
3. Add half of a quarter to five eighths of four, and multiply the result by eight.
4. What is the value of 126 acres of land at £51 an acre?
5. One man can walk 20 miles a day, a second 12, a third 10. Find the least distance which would occupy each of them a complete number of days if they set off to walk together.
6. How many sevenths are there in five?
7. If an aeroplane flies at 400 miles an hour, how far does it go in one minute.
8. $\frac{1}{2}$ cwt. $- \frac{1}{7}$ cwt. $+ \frac{7}{8}$ cwt. Give your answer in lbs.
9. A man left $\frac{1}{3}$ of his property to his widow and $\frac{2}{5}$ of the remainder to his daughter. He gave the rest to his son, who received £640. How much was his original property worth?
10. A pound is $\frac{5}{11}$ of a kilogram. How many kilograms are there in 121 lbs.?

11. If 9 yards of material cost 8s. 3d., how many yards can be bought for £5 1s. 9d.?
12. Three bells which commence tolling together, toll at intervals of 1.2, 1.5, 3.0 seconds respectively. At what interval will they toll together again?
13. Find the value of 59 yds. 1 ft. 6 ins. of silk at 6s. per yard.
14. A clock gains $1\frac{1}{2}$ minutes every hour. How much does it gain in a week? Give your answer in hours and minutes.
15. What is the area of a figure whose sides are 1 ft. 6 ins. by 2 ft. 4 ins.? Give your answer in square inches.
16. If three men can do the work of five boys, how long will it take 10 boys to dig a ditch which three men can dig in 9 days?
17. What number when multiplied by 7 is half of 42?
18. Find the cost of 10 gallons at 2s. 3d. a pint.
19. Express 1s. 6d. as a decimal of fifteen shillings.
20. Find the value of 20 dozen bottles of wine at 3 shillings a bottle.
21. A man burns $\frac{1}{4}$ cwt. coal a day. If coal costs £2 5s. per ton, find the cost of coal for the month of September.
22. If a franc is worth 9.5 pence, how many francs should be obtained for £9 3s. 8d.?
23. How many $\frac{1}{4}$ -oz. packets can be made from a quantity weighing 2 st. 12 lbs.?
24. How many hours are there in $\frac{3}{8}$ of a day?
25. What is the area of a field in square yards having sides 360 feet by 100 yards?

ARITHMETIC A

Half an hour

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1. From the sum of 15 and 34 take 23.
2. Multiply 23 by 9.
3. Divide 19545 by 3.
4. From 6s. 7d. take 4s. $9\frac{1}{2}$ d.
5. Add £1 18s. 9d. to 8s. 3d.
6. What is the difference between 4 times 6s. 9d. and 8 times 6s. 9d.?
7. If 3 hooks cost 8s. $9\frac{1}{2}$ d., what is the cost of 18?
8. One half of a basket of eggs was bad. One third of the good ones I gave away. I had 6 left. How many had I in the basket at first?
9. How many inches are there in 8 yards?
10. What is three eighths of a quarter?
11. Express $\frac{1}{4}$ and $\frac{1}{8}$ as decimals. Add them and give the answer in decimals.
12. Divide £16 10s. 0d. by 15.

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13. How many pieces of cardboard, each $\frac{1}{4}$ inch thick, would be required to make a pile 1 yard high?
14. $11\frac{1}{8} + 6\frac{5}{8} + 1\frac{5}{24} - 8\frac{1}{6}$.
15. What is 50% of half a crown?
16. What is the cost of 5 lbs. of potatoes at $2\frac{1}{2}$ d. a pound?
17. What is five times 6.5?
18. How many ounces are there in two and a half stones?
19. $7381 + 327 - 3204$.
20. £3 2s. 3d. - £1 4s. 4d.
21. $7431 - 642$.
22. What is a $\frac{1}{4}$ of 3s. 4d.?
23. $1.32 + 7.01$.
24. $7\frac{3}{4} - 2\frac{3}{8}$.
25. 814×22 .
26. Divide 200 by .5.
27. $.14 \div 2$.
28. What number is twice as large as the difference between eighty and two hundred?
29. $76 - .67$.
30. $1\frac{1}{2} \times \frac{2}{3}$.

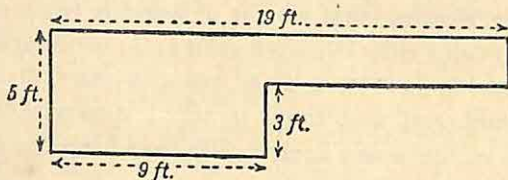
ARITHMETIC B

One hour

1. Two cars set out in entirely opposite directions, one leaving at 10 a.m. and travelling at the rate of 30 miles an hour. The other travelling at the rate of 40 miles an hour leaves at noon. How many miles will the two cars be apart at 4.30 p.m. on the same day?
2. If I can get $\frac{1}{2}$ pint of oil for $\frac{1}{2}$ quart of turpentine, how many pints of turpentine can I get for £1, if I can get 8 gallons of oil for £6 8s. 0d.?
3. If it needs a piece of wood 1 ft. by 6 ft. to make a shelf for a book-case, what weight of wood is required to make 10 such cases with five shelves in each, considering that the top, bottom and two sides are the same dimensions as each shelf, and that there is no back to each case? The weight of the wood used is 1 lb. per 3 square feet.
4. Two clocks are set correctly at 10 a.m. on Friday. One clock gains twice as much as the other, gaining two minutes every hour. What time will both clocks register at what should be 2 p.m. on the following Monday?
5. Divide £2 0s. 6d. into an equal number of half-sovereigns, half-crowns and shillings.
6. Find the least number which divided by 6, by 8, and by 9 gives in each case the remainder 4.
7. The water supply of a town is equal to 104 gallons per day for each house. After a time the number of houses increases

by one twelfth, whilst the total supply diminishes by one sixth. How many gallons can now be supplied per day to each house?

8. If 3 men earn between them £14l 15s. 0d. in a year, in what time will 4 men earn £3l 10s. 0d.?
9. Express 12s. 6d. as a decimal of £1.
10. If it takes 12 carts 3 days of 12 hours each to remove a load of bricks, how many similar carts would be required to remove the same load in 12 hours?
11. If I buy 5 chairs for £4 10s. 0d., and sell them for £5 7s. 6d., how much profit will I make on each chair?
12. Find the cost of tiling the area in the following diagram at 1s. per square foot.



13. Find the total cost of the following : 19 ozs. of tea at $2\frac{1}{2}$ d. per oz., 1 cwt. sugar at $3\frac{1}{2}$ d. per lb., 3 lbs. pepper at $1\frac{1}{4}$ d. per oz., 8 score eggs at 9d. per doz.
14. A boy had 150 marbles. He gave 35 of them to his brother, and $\frac{1}{5}$ of the remainder to his cousin. How many had he left?
15. What fraction of a mile is 2 furlongs 55 yards?

ARITHMETIC A

Half an hour

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1. Find $\frac{1}{5}$ of 10s. $2\frac{1}{2}$ d.
2. $3.06 \div 9$.
3. Multiply 232 by 89.
4. Divide £39 15s. 0d. by 12.
5. A woman buys one pint of milk daily for herself and for each of her three children. How much does she buy in quarts per week?
6. $3\frac{3}{10} + 1\frac{1}{5} - 2\frac{1}{2}$.
7. Reduce 6 furlongs to feet.
8. Add 3s. $4\frac{1}{2}$ d., £2 16s. 0d., 8d., and £432 1s. 1d.
9. Divide 8928 by 279.
10. Find the total cost of the following : 18 canes at 5d. a dozen ; 4 balls of string at $3\frac{1}{2}$ d. a ball ; $1\frac{1}{2}$ lb. of nails at 6d. a pound ; 3 yds. wire at 1s. $1\frac{1}{2}$ d. a yard.
11. Subtract 11880 from 88111.
12. 7.05×4.14 .

13. A grocer weighs out twenty $\frac{1}{4}$ -oz. packets of pepper from a tin containing half a pound. How many ounces are left?
14. A man began to dig at 10.15 a.m. What time did he finish if he went on digging for four and a half hours?
15. $13\frac{3}{4} \div 2\frac{3}{4}$.
16. Add 5342, 89, 907 and 7.
17. What is 25% of £4 4s. 8d.?
18. $1\frac{1}{2}$ lb. of cherries cost 1s. 3d. What was the price per lb.?
19. Express 12.32 as a vulgar fraction.
20. $3.24 - .45$.
21. £18 4s. 1d. + 3s. 11d. - £2 1s. 3d.
22. How many sixpences are there in five pounds five shillings?
23. $.43 \times 700$.
24. Multiply one eighth of fifty-six by one half of twenty.
25. 1s. 3d. $\times 8$.
26. $\frac{1}{3} \times 1\frac{1}{4}$.
27. What is $\cdot 1$ of 3s. 4d.?
28. $432 + 501 - 36$.
29. $5432 - 633$.
30. 43×28 .

ARITHMETIC B*One hour*

1. How much seed is required to plant 16 square yards of grass at the rate of three quarters of a pound per square yard?
2. If a boy saves 2 shillings a week, how long will it take him to save £1 12s. 0d.?
3. A man owns 17 orchards, each containing 17 rows of trees, and each row containing 17 trees. How many trees has he?
4. In what time will 24 horses plough a field which 16 horses will plough in 12 days?
5. Express 7 stones 10 lbs. as the fraction of a cwt.
6. If 3 lbs. 4 oz. of tea cost 13s. 3d., what would 2 stones 11 lbs. cost?
7. How many hundreds are there in ten million?
8. How much change from a £1 note would I get if I bought 23 articles at 9d. each?
9. Three quarters of my money is spent. I have 24 shillings left. How much did I have at first?
10. Add together $\pounds\frac{5}{8}$, $\frac{5}{42}$ of a guinea, .25 of a florin and $\frac{1}{6}$ of half a crown.
11. If I walk at the rate of $4\frac{1}{2}$ miles an hour, how long will it take me to walk 135 miles?
12. If 24 printers can print a work in 4 days, how many printers would be required to do the same work in 3 days?

13. A farmer bought 32 sheep at £3 a head and 9 cows for £11 a head. How much more did the cows cost than the sheep?
14. Find the least number which added to 5760 will make the sum exactly divisible by 101.
15. What numbers of two figures will divide into 41 and leave a remainder of 5?
16. What is the smallest number $\frac{1}{8}$ and $\frac{1}{6}$ of which are both whole numbers?
17. A man bought 96 apples at the rate of 4 for 3d., and exchanged them for pears at 4d. each. How many pears did he receive?
18. If I sell articles at 3 for $7\frac{1}{2}$ d., how much will I make if I sell 56 such articles?
19. Add 54, 32 and six times 19.
20. The earnings of a man and his two sons amount to £3660 a year, and their expenses to £1590. If they share their income equally, how much will each receive?
21. Reduce 25 lbs. 6 ozs. to a fraction of 5 stones.
22. What decimal of a ton is 16 stones?
23. Find the area in square inches of a flat surface which is 2 feet by 1 yard.
24. A boy earns 5s. 6d. a week. What does he earn in a year?
25. How many seconds are there in $3\frac{3}{4}$ hours?

ARITHMETIC A

Half an hour

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1. A man weighs 14 st. 6 lbs. How much is his weight in lbs.?
2. A book has 200 pages. 100 pages measure 1 in. across. Each of the two covers is $\frac{1}{16}$ in. thick. How thick is the book?
3. Add 543, 897, 16, 4325.
4. $6\frac{1}{12} + 9\frac{2}{9} + 8\frac{1}{8}$.
5. $0.3 + 1.07 + 6.14$.
6. £5 11s. 9d. + £3 4s. $8\frac{1}{2}$ d. - £2 19s. 9d.
7. What is the cost of 6 lbs. sugar at $3\frac{1}{2}$ d. a pound?
8. If 8 gallons cost £1 12s. 0d. how much will one quart cost?
9. What fraction of £15 is £2 5s.?
10. What is the area in square feet of a place whose sides are all 5 yards?
11. Write the vulgar fraction for 0.6 in its lowest terms.

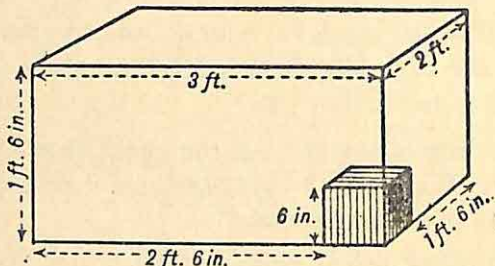
12. How long will it take a train to travel 140 miles at 40 miles per hour?
13. Divide 475 by 25.
14. From 65432 take 7789.
15. How many lbs. are there in $1\frac{1}{2}$ cwt.?
16. Which is the greater and by how much: a half of a sovereign or half a dozen half-crowns?
17. $42\frac{1}{2} \times 7\frac{3}{8}$.
18. How many inches are there in $5\frac{3}{4}$ yards?
19. 173×11 .
20. $3s. 2d. + 1s. 3d. \times 3$.
21. $3\frac{2}{7} - 1\frac{1}{14}$.
22. 306×4 .
23. How many fourpences are there in the sum that remains after three shillings have been subtracted from one pound?
24. What is 13% of 300?
25. Express $2\frac{3}{8}$ as a decimal fraction.
26. Add $\frac{1}{2}$ of 306 to a $\frac{1}{4}$ of 444.
27. $\pounds 15.5 - \pounds 6.2$. Express your answer in £ s. d.
28. Write down in figures a half of a million.
29. $3456 + 327$.
30. $8763 - 897$.

ARITHMETIC B

One hour

1. A man's step is 2 ft. 6 ins. He takes 1056 such steps when walking for fifteen minutes. How many miles an hour does he walk?
2. If I buy 5 dozen articles at 4 for 6d. and 4 dozen of another kind at 6 for 7d., mix them and sell the whole at 6 for 9d., how much do I lose or gain?
3. $\frac{1}{20}$ of a class is absent. All the girls, 20 in number, are present. There are 18 boys present. How many children are there in the whole class?
4. What number, when multiplied by 6 and divided by 3, gives eight?
5. If I buy 8 cwt. of a commodity at 3d. a pound, how much change will I get from 11 guineas?
6. Find the cost of tiling the floor of a room whose dimensions are 10 ft. by 11 ft. ; the size of each tile being 10 square inches, and the cost 6d. a tile.
7. If 10 gallons of a liquid cost £2 0s. 0d., how many pints could I buy for 12s. 0d.?
8. A clock gains 9 minutes every six hours. What time will it register on Saturday, if the clock is started at 10 a.m. on Friday, and runs for 30 hours?
9. A. takes 5 days to dig a trench. B. takes 7 days to dig the same trench. How long will it take them if they dig together?

10. How many hurdles, each 1 yd. long, will be required to fence a field whose dimensions are 60 ft. by 90 ft.?
11. The average of four sums of money is 3s. 10d., and that of the first three is 4s. 2d. What is the fourth sum?
12. The shaded portion of the following diagram represents a bar of soap. How many such bars can be packed in the box having the dimensions given?



13. Find the total cost of the following : 6 doz. oranges at $1\frac{1}{2}$ d. each ; 36 lbs. coffee at 2s. 7d. per lb.; $3\frac{1}{4}$ lbs. tobacco at $3\frac{1}{2}$ d. per half-ounce ; 43 lbs. tea at 2s. 9d. per lb.
14. A truck of coal containing 8 tons is sold at the pit for 13s. per ton and is delivered at a station 123 miles distant for £8 4s. What did the railway company charge for carriage per ton per mile?
15. Along a road 350 yards long, posts are placed 2 ft. 6 ins. apart. If there is one at the beginning and one at the end, how many posts are there altogether?



ARITHMETIC A

Half an hour

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1. $3206 - 213$.
2. Multiply 427 by 44.
3. $4s. 3d. + 8s. 10d. + 11s. 7d.$
4. Divide 881334 by 54.
5. How many ounces are there in 2 cwt.?
6. 2 florins + 6 shillings + 3 sixpences.
7. Subtract £53 6s. 2d. from £137 4s. 1d.
8. How many miles and furlongs are there in 22220 yards?
9. Add together 84, 3246, 3, 624 and 37.
10. $3s. 6d. \times 60$.
11. Divide £169 1s. 0d. by 23.
12. $3\frac{1}{2} + 6\frac{3}{4} + 2\frac{3}{12}$.
13. Multiply $7\frac{1}{2}$ by $3\frac{1}{2}$.
14. Divide 16 by $\frac{3}{4}$.



15. How many half-pints of milk could a milkman supply from a can containing $11\frac{1}{2}$ gallons?
16. What is the cost of 5 dozen articles at $5\frac{1}{2}$ d. each?
17. 32×75 .
18. Add $11\frac{3}{4}$, $6\frac{1}{4}$ and $9\frac{1}{4}$ and give your answer in decimals.
19. $424 + 336 \times 3$.
20. What is $\frac{1}{2}$ of 2.4 expressed as a vulgar fraction?
21. $2.06 + 3.1$.
22. How much is 9% of 8s. 4d.?
23. $1144 \div 22$.
24. $3.41 - 2.5$.
25. Add half a gross to two dozen and subtract a score from the answer.
26. How many 1s. 3d.'s are there in £1 10s. 0d.?
27. 732×21 .
28. Subtract 143 from 321.
29. $324 + 765 + 11$.
30. 43×17 .

ARITHMETIC B

One hour

1. How many pieces of paper, each 6 ins. by 6 ins. can be cut from a sheet 6 ft. by 2 ft.?
2. A sideboard 4 ft. 3 ins. long is to be placed exactly in the middle of a wall. The length of the wall is 13 ft. 9 ins. What will be the length of the space on either side of the sideboard?
3. How many half-crowns are there in £50?
4. How many days are there between June 11th, 1930, and May 1st, 1931?
5. From a piece of timber 31 feet in length as many smaller pieces as possible, each 16 inches long, are cut. After the last of the smaller pieces has been cut, how much timber remains?
6. If 32 gallons cost £8 0s. 0d., how many half-pints can I buy for 1s. 3d.?
7. What is the cost of 14 lbs., if one cwt. costs 28s.?
8. One man's pace is 34 ins. and his brother's is 29 ins. They both take 60 steps every 3 minutes. If they set out walking together, how far in front of his brother will the man be after 12 minutes? Give your answer in yards and feet.
9. If I shall be 16 in two years' time, and I am now twice as old as my sister, how old is my sister now?
10. How many telegraph poles will be required for a wire extending 4 miles if the distance between each pole is 80 feet?

11. How long will 5 tons of coal last for 10 fires, if each fire consumes 28 lbs. per day?
12. Two clocks both gain time. One gains 3 minutes every 4 hours, whilst the other gains 2 minutes every 3 hours. If both clocks are set correctly at 10 a.m., how many minutes difference will they show at what should be 10 p.m. on the same day?
13. What number when multiplied by 7 and divided by 3 gives 63?
14. What is 25% of £2 3s. 4d.?
15. How often will $1\frac{1}{2}$ d. go into 16s.?
16. If 32 men build a house in 12 days, how many will be required to build it in 16 days?
17. Subtract 5 hours from 75% of 12 hours.
18. What change from £1 would I get if I bought 2 score of apples at 10 for a shilling?
19. What is the total cost of the following bill : 2 yards at $6\frac{1}{2}$ d. a foot, 2 pints at 4s. a gallon, 3 lbs. at 7s. a stone?
20. If John can swim 50 yards in 80 seconds and Tom can swim the same distance in 100 seconds, by how many seconds will John win in a race of 100 yards?

ARITHMETIC A

Half an hour

Candidates are advised to attempt as many questions as possible. No one is expected to do all the questions in the given time. Do what you can. If, after trying a question, you find you cannot do it, leave it and go on to the next without wasting any more time on it.

1. Add together £6 12s. 8d., £3 19s. 0d., £4 10s. $9\frac{1}{2}$ d.
2. 743×32 .
3. Divide £4 13s. 4d. by 5.
4. Subtract £1 6s. 9d. from £3 18s. $10\frac{1}{2}$ d.
5. Divide 24024 by 77.
6. A tin of fruit weighs 13 ounces. What will be the weight in lbs. and ounces of seven such tins?
7. If daylight begins at 6.35 a.m. and ends at 8.30 p.m., how many hours and minutes daylight are there in one such day?
8. Add together 5643, 89, 1008 and 534.
9. A boy weighs 11 lbs. more than his sister. He weighs 6 st. 9 lbs. How much does his sister weigh?
10. What is the cost of 16 articles at 4 for 1s. $1\frac{1}{2}$ d.?
11. 1.32×3.03 .
12. $3\frac{5}{8} \times 1\frac{1}{2}$.

13. Find $\frac{3}{5}$ of 6 lbs. 9 ozs.
14. Divide 11 yds. 2 ft. 6 ins. by 6.
15. $1\frac{1}{2} + 11\frac{3}{4} + \frac{3}{8} + 1\frac{3}{4}$.
16. Find the cost of $8\frac{1}{2}$ gallons of milk at $4\frac{1}{2}$ d. a pint.
17. $\cdot 05 + 1\cdot 01 - \cdot 03$.
18. What is 20% of 1 ton 10 cwt.?
19. What is $\frac{3}{8}$ of £10 expressed in £ s. d.?
20. Express $\frac{2}{5}$ as a decimal fraction.
21. $732 \div 12$.
22. Multiply 2s. 4d. by 24.
23. How many seconds are there in $3\frac{1}{8}$ hours?
24. $12\frac{1}{4} \div 3\frac{8}{9}$.
25. $3\frac{1}{8} \times \frac{4}{6}$.
26. How many $1\frac{1}{2}$ d. articles can be bought for ten shillings?
27. $371 + 4076 - 3088$.
28. $16\cdot 1 \div 2\cdot 3$.
29. 34×56 .
30. Express $11\cdot 42$ as a vulgar fraction.

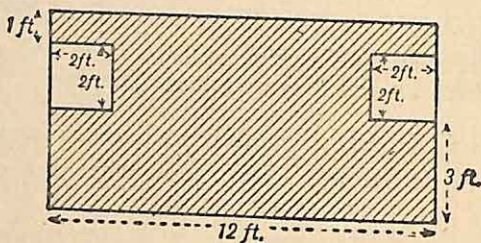
ARITHMETIC B

One hour

1. An equal number of men, women, and boys earn £3 10s. 0d. between them in one day. If each man earns 3s. 4d., each woman 2s. 4d., and each boy 1s. 4d. per day, how many were there of each?
2. How much must be given for 13 articles at the rate of £3 6s. 9d. per 3 articles?
3. Find the average of 20 figures if the first six add up to 121, the second six to 145, the third six to 38, and the last two to 16.
4. If it takes a man an hour to climb a hill of 1000 feet, and he can climb down at twice the rate, how long will it take him to climb up and down a hill of 3500 feet?
5. If it costs £2 0s. 6d. to paper a wall whose length is 18 ft. at the rate of 3d. per square foot, what is the height of the wall?
6. By selling 5 articles for a total cost of £15 15s. 0d., a man loses 3s. on each article. What did he pay for each article?
7. Complete the following bill :

| | | | | |
|---|---|---|---|-------------|
| 29 articles at — each cost | - | - | - | 14s. 6d. |
| 1 quart at $6\frac{1}{2}$ d. a pint costs | - | - | - | |
| — lbs. at 3d. an ounce cost | - | - | - | £1 16s. 0d. |
| TOTAL | - | - | - | - |

8. I can run twice as fast as my brother. If it takes him 3 hours to run 10 miles, how long will it take me to run 15 miles?
9. What is the largest sum of money which will divide exactly into both £7 9s. 6d. and £14 19s. 0d.?
10. If I can run twice as fast as my cousin, and three times as fast as my sister, by how many seconds would I beat each in a race of 100 yards, if I can run 10 yards in $1\frac{1}{2}$ seconds?
11. A. can row from B. to C., a distance of 24 miles, and back in still water in 12 hours. How long will it take him to do the same if a stream flows from B. to C. at the rate of 2 miles per hour?
12. Find the area of the shaded portion of the following diagram :



ARITHMETIC A

Half an hour

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1. What is the cost of 24 balls at 4 for 3d?
2. How many ounces are there in $4\frac{1}{4}$ lbs.?
3. Add £1 4s. 9d., £3 4s. 8d., 16s. 4d. and $3\frac{1}{2}$ d.
4. $64 \div \frac{1}{8}$.
5. Write down, in figures, one thousand eight hundred and three.
6. What is the weight in cwt. and qrs. of 70 parcels each weighing 2 lbs.?
7. $19543 + 9876 + 110 - 7865$.
8. 324×65 .
9. Divide 283198 by 37.
10. $.35 \div .7$.
11. I had £5 6s. 3d. and lost £3 7s. 9d. of it. The next day I found £1 0s. 0d. How much did I finally have?
12. $1\frac{7}{8} + \frac{3}{4} + \frac{1}{16} + 4\frac{1}{2}$.
13. Multiply 10 by 2.45.

14. How many seconds are there in one and a quarter hours?
15. $8\frac{1}{2} \times \frac{9}{34}$.
16. If a pint costs $4\frac{1}{2}$ d., how much do 2 gallons cost?
17. How many pieces of string, each 6 ins. long, can be cut from a ball 61 yards long?
18. What is left when a half of a quarter is taken from three quarters and then multiplied by three?
19. Subtract 732 from 4321 and add 72 to the remainder.
20. $2s. 7d. \times 8$.
21. $3\frac{2}{5} \div 6\frac{4}{5}$.
22. 3.25×2.1 .
23. Add $1\frac{1}{4}$ to 3.5 and express your answer as a vulgar fraction.
24. What is 14% of 1300?
25. $12\frac{5}{8} \div 2\frac{3}{4}$.
26. How many boys can go to the cinema if they have £2 among them and the price of admission is 1s. 3d. each?
27. Divide £1 16s. 0d. by 9.
28. $81401 - 237$.
29. $345 + 23 + 786$.
30. 32×44 .

ARITHMETIC B*One hour*

1. A cyclist travels at the rate of 10 miles an hour. How far will he get in 5 hours, if he stops half an hour for lunch on the way?
2. What is the difference in cost between 15 articles at 5 for 10d. and 25 articles at 10 for 9d.?
3. What is $\frac{3}{4}$ of $\cdot 16$? Write your answer as a decimal.
4. If 3 hens are worth 8 rabbits, how many rabbits can I buy for £1 16s. 0d., if one hen costs 6s.?
5. Find the cost of concreting a yard 21 ft. by 33 ft. at 3s. 0d. a square yard.
6. How many men must be used to build a camp in 100 days if it takes 20 men to build a similar camp in 75 days?
7. A motor-car travelled 9 miles in 15 minutes. How many miles-per-hour did it travel?
8. In a competition, Harry and John scored 102 points between them, whilst Harry and Fred scored 88 points between them. If the total score was 150, how many points did each score?
9. How much do I lose or gain by buying 12 cwt. of coal at 2s. 8d. a cwt. and selling it at the rate of £5 a ton?
10. My salary rises by £50 each year. I started at £300 a year. Now I get £700. How long have I been working?

11. My car goes 30 miles on a gallon of petrol. I go on a journey of three hours averaging 40 miles an hour. How much does petrol cost me for this journey, if it is 2s. 0½d. a gallon?
12. If I travel return fare on the railway to my work I am charged 1s. 6d. If I go by 'bus I can only buy single fare for which I pay 9½d. How much would I lose or gain by travelling for seven days on the train rather than on the 'bus?
13. If I buy paint in bulk, I can get 12 lbs. for 9s. 0d., but if I buy it in separate lb. tins, I have to pay 1s. 0d. for a tin. How much would I lose by buying 12 lb. tins separately?
14. If a man is paid 1s. 6d. an hour, how much would he earn in a week of six days, if he works eight hours a day?
15. Two cars race each other. One goes at 45 miles an hour and the other at 60. By how many miles would the faster one beat the other in a race of 132 miles?
16. Glass costs 6d. a square foot. What is the cost of a pane of glass for a window having measurements of 3 yds. by 2 yds.?
17. Take ten times twenty from a quarter of a million.
18. Multiply $\frac{2}{7}$ of a guinea by $\frac{1}{2}$.
19. A kilometre is $\frac{5}{8}$ of a mile. How many kilometres are there in 16 miles?
20. Twice a certain number is a third of 54. What is the number?

ARITHMETIC A

Half an hour

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1. A train leaves London at 9.32 a.m. and arrives at Durham at 5.23 p.m. How long did it take?
2. Subtract £1 8s. 3d. from £3 5s. 0d.
3. Divide 18 st. 6 lb. by 3.
4. $11\frac{3}{8} + 8\frac{1}{4} + 5\frac{1}{8} - 6\frac{5}{8}$.
5. $6.01 - 3.54 + 8.08$.
6. Find the cost of 5%, if 100% costs £5.
7. $8909 + 101 + 76543 - 34654$.
8. $3\frac{1}{3} \times 5\frac{2}{5}$.
9. Three films at a cinema last 1 hr. 6 min. 4 sec., 11 min. 2 sec. and 2 hr. 7 min. 34 sec. respectively. How long did the whole show last?
10. $40107 \div 87$.
11. Express 88 ozs. in lbs. and ozs.

12. Find the cost of 180 units of electricity at 6d. a unit.
13. Multiply 873 by 72.
14. $19\frac{1}{4} \div 5\frac{1}{2}$.
15. Express 27 pints in quarts and pints.
16. 3 yd. 1 ft. 0 ins. $\div 8$.
17. 7.07×6.43 .
18. £1 0s. 11d. + £4 14s. 0½d. + £2 9s. 1d.
19. $5432 - 4543$.
20. 43×23 .
21. How many sixpences are there in two dozen florins?
22. $654 + 231 + 98$.
23. Find the cost of 25 articles at 1s. 3d. each.
24. Add a $\frac{1}{4}$ of £5 to a $\frac{1}{3}$ of £9.
25. What fraction of 6 lbs. is one ounce?
26. How many inches are there in 3 ft.?
27. 13s. 4d. $\div 4$ d.
28. $\frac{1}{2} + \frac{7}{8} + \frac{1}{3}$.
29. Express $\frac{5}{8}$ as a decimal fraction.
30. What is 60% of 60?

ARITHMETIC B*One hour*

1. Three boys weighed 18 st. 9 lb. between them in 1934. In 1936, their combined weight was 25 st. 1 lb. How much, on the average, had each boy gained in two years?
2. A man divided his estate, giving $\frac{3}{5}$ to his eldest son ; $\frac{1}{3}$ of the remainder to his youngest son ; and the rest to his daughter. If her share was worth £400, how much was the whole estate worth?
3. Find the greatest number which, when divided into 94, leaves 3.
4. If three bells toll at intervals of 4, 8 and 12 seconds, and start together, after what interval will they be tolling together again?
5. If 10 yards of material cost £1 10s. 0d., how many feet can I buy for 3s.?
6. Divide £6 6s. 0d. between two men so that one has twice as much as the other.
7. Three cricketers make 129 runs between them. Smith and Brown make 106 between them. Smith and Green make 68 between them. How many runs did each make?
8. A garden is 24 ft. long and 12 ft. wide. Find the area of a path 3 ft. wide which is to be made all round the garden on the inside. Give your answer in square feet.
9. A crew rowing 22 strokes a minute, row 3 miles 4 furlongs in 56 minutes. How far does the boat travel between each stroke?

10. A farmer had two lots of hens. One lot of 36 hens laid 432 eggs in three weeks. The other lot of 17 hens laid 102 eggs in a fortnight. How many more eggs per week did the hens of the first lot lay?
11. Henry's car travels at 60 miles an hour, whilst Tom's goes at 45 miles an hour. By how many miles will Henry's car beat Tom's in a race of 80 miles?
12. An aeroplane reaches a height of 4.6 miles when it meets a storm. It comes down to 2.7 miles to avoid the weather. How many yards did the aeroplane drop?
13. Complete the following bill :
- | | | |
|--|-----------|-------------|
| 3 gross lead pencils at 1s. 2d. per doz. - | | |
| — envelopes at 6d. for 20 | - - | £2 10s. 0d. |
| 5½ doz. rulers at — each | - - - | 11s. 0d. |
| TOTAL - | - - - - - | _____ |
14. For a certain sum a porter agreed to carry a parcel weighing 2 qrs. 16 lbs. a distance of $1\frac{1}{2}$ miles. How far would he carry 3 qrs. 12 lbs. for the same money?
15. A train going at the rate of 26 miles 7 furlongs an hour makes a journey in 5 hours 36 minutes. How long would it take if it travelled at the rate of 32 miles 2 furlongs an hour?

ARITHMETIC A

Half an hour

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1. $1000 + 10 + 100 + 6$.
2. $1\frac{5}{8} + \frac{1}{8} + 5\frac{1}{2} + 4\frac{1}{4}$.
3. Subtract 564 from 9806.
4. £3 2s. $0\frac{1}{2}$ d. + £18 16s. $11\frac{3}{4}$ d. + £2 11s. 0d.
5. $8\frac{7}{8} \div 4\frac{3}{4}$.
6. $6.42 + 9.67 + 7.01$.
7. Divide 8384 by 131.
8. $1.1 - .18$.
9. A field is 111 yds. long and 18 yds. wide. How many yards of wire will be required to fence it?
10. What is the total cost of 9 gallons at 6d. a half pint?
11. £54 8s. 10d. - £23 11s. 11d.
12. What is the cost of 10 packets of cigarettes at 1s. 3d. for 2 packets?

13. Buns are sold at 4 for 6d. How much would a gross cost?
14. 765×43 .
15. $41\frac{6}{7} - 13\frac{3}{14}$.
16. 10s. 6d. \times 12.
17. Subtract 1 ton 14 cwt. from 3 tons.
18. Express 29 florins in £ s. d.
19. $6.5 \times .9$.
20. What is 45% of £300?
21. $4536 + 324 + 786$.
22. $425 \div 17$.
23. $2.56 \div 6.4$.
24. £5 6s. 3d. \times 5.
25. $4356 - 876$.
26. How many ounces are there in $\frac{5}{8}$ of a lb?
27. Express 1.11 as a vulgar fraction.
28. How many eighths are there in three?
29. What is $\cdot 6$ of 1200?
30. Find the least number other than 1 that will divide exactly into 45.

ARITHMETIC B

One hour

1. If I pay Income tax at the rate of 5s. In the £, what will I have left for myself if I earn £560 per annum?
2. What does a dealer gain on 3 tons of coal if he buys at £1 10s. 0d. a ton and sells at a half a crown a cwt.?
3. What is $\cdot 06$ of $6\frac{1}{4}$ gallons?
4. If it takes me 16 minutes to walk a mile, how long will it take me to run 440 yards, if I run twice as fast as I walk?
5. Find the least number which added to 492 will make the sum exactly divisible by 99.
6. A man divided his estate into three portions, giving $\frac{1}{2}$ to his wife, $\frac{1}{3}$ to his eldest son and the remainder to his servant. If the servant's share was £60, how much was the value of the estate?
7. A certain number of cows was sold for £400 at a total loss of £30. The farmer said he had lost £3 on each cow ; for how much did he sell each cow?
8. Add together 5.25 cwt. and 6 lbs. and give your answer in lbs.
9. Six shillings is made up of an equal number of shillings and florins. How many coins are there altogether?
10. A boy had twice as many sums right as wrong. If he had done 24 sums, how many were right?

11. How many pieces of string, each 1 ft. can be cut from half a ball of string, if three balls together measure 48 yds.?
12. A yard equals $\frac{1}{3}$ of a metre. How many metres are there in 65 yards?
13. My garden is 5 yds. long and 7 yds. wide. How much must I pay for wiring it at 1d. a foot?
14. A man buys a packet of 10 cigarettes a day for a week at 6d. a packet. How much would he save if he bought 70 loose for 3s. 1d.?
15. What numbers, less than 45, when divided by eight leaves two more than three?
16. How many minutes does a clock gain in a week if it gains a quarter of an hour every three hours?
17. Add $\frac{7}{8}$ of a gallon to $\frac{1}{2}$ of a quart and subtract 1 pint.
18. How many ounces are there in $1\frac{1}{2}$ stone?
19. How many days were there in the years 1931 to 1933 inclusive?
20. If it costs me 1d. to buy a card and 2d. to send it ; 3d. for 12 envelopes, and $2\frac{1}{2}$ d. to send a letter, how much will I have to pay for sending 4 letters and 5 cards?

ARITHMETIC A

Half an hour

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1. $3476 - 2587$.
2. How many shillings are there in five guineas?
3. A gallon costs 8s. 0d. How much does a half pint cost?
4. $1\frac{1}{2} \times 8\frac{3}{4}$.
5. Add 3118, 25341, 17, 365.
6. 1.86×4.32 .
7. I had to wait from 11 a.m. until 12.35 p.m. for a train. How many minutes did I wait?
8. The postage on letters is $2\frac{1}{2}$ d. for the first 2 ozs. and 1d. for each additional 2 ozs. or fraction of 2 ozs. What is the postage on a letter weighing 13 ozs.?
9. Write down in order of size, smallest first : $\frac{7}{8}$, .01, $\frac{3}{4}$, $\frac{6}{7}$.
10. What is 60% of 40 gallons? Give your answer in pints.
11. Find the total cost of 12 dozen articles at six for 8d., $\frac{1}{2}$ score of pens at $1\frac{1}{2}$ d. each, 110 pencils at 10 for 1s.

12. How many pounds are there in $2\frac{1}{2}$ quarters?
13. A boy gave away a fifth of his cake to one boy and a half of the remainder to another. How much of the original cake had he left?
14. What number when multiplied by 3 and then divided by 6 gives 4?
15. $1\frac{7}{8} + 4\frac{2}{3} + 3\frac{1}{4} - 2\frac{1}{2}$.
16. £5 3s. 11½d. - £2 11s. 0½d.
17. $8 \div 2.5$.
18. How many inches are there in $3\frac{3}{4}$ yards?
19. $1128 \div 8$.
20. What fraction of 4 lbs. is 8 ozs.?
21. 3s. 6d. $\times 25$.
22. $435 + 345 + 278$.
23. $546 - 331$.
24. $1.04 + 2.22$.
25. $5.61 - 3.03$.
26. £4 4s. 4d. $\times 3$.
27. $3\frac{2}{3} \div 11$.
28. What fraction of 4s. is 3d.?
29. How many minutes are there in $\frac{1}{3}$ of an hour?
30. 43×7 .

ARITHMETIC B

One hour

1. In a walk of 15 miles, I walked the first 5 miles at $2\frac{1}{2}$ miles an hour, the next 4 at 4 miles an hour and the last 6 miles at 2 miles an hour. How long did the walk take me?
2. If a cart wheel is $3\frac{1}{2}$ ft. in diameter (the diameter is the length across the wheel) and the distance round the outside of the wheel is $\frac{22}{7}$ times its diameter, how many times does the wheel go round in a distance of 220 ft.?
3. A boy gave away a fifth of his marbles to his friend and a quarter of his original total to another friend. He had 44 marbles left. How many had he at first?
4. Complete the following bill by filling in the blanks:

| | | | |
|------------------------------------|---|---|----------|
| 3 dozen articles at 4 for 3d. cost | - | - | |
| — lbs. at 1d. an ounce cost | - | - | 16s. 0d. |
| 4 score at — each cost | - | - | 13s. 4d. |
| TOTAL | - | - | <hr/> |
5. A man works eight hours a day for a week of five days, and for four hours on Saturday. If he works on a Sunday he gets half as much again for each hour he works. At the end of one week he received £3 0s. 1d. On Sunday that week he had worked 5 hours and earned 8s. 9d. for that day. How much per hour did he receive for working on weekdays?
6. Two men set out to meet each other from two towns 360 miles apart. The older man travelled at 40 miles per

hour, whilst the younger travelled at 60 miles per hour. How many miles did the older man travel before he met the younger man?

7. For every 3d. that a boy saves his father gives him 1 shilling. When he has saved 10 shillings, how much will his father give him?
8. Which is the smallest number of three figures that is exactly divisible by 21?
9. How many books, each of which measures $1\frac{1}{2}$ in. across its pages and whose covers are each $\frac{1}{16}$ in. thick, will go in a bookcase that has 3 shelves, each 1 yd. 8 ins.?
10. If 20 men pave a yard in 12 days, how long will it take 15 men?
11. What is .35 of £4?
12. Find the cost of 1 quart, if 8 gallons cost £1 12s. 0d.
13. If 4 cwt. 2 qrs. cost 4s. 6d., how much can be obtained for 12s. 6d.?
14. A swimmer takes 22 strokes a minute and goes $2\frac{1}{2}$ yards each stroke. How long will it take him to swim $\frac{1}{4}$ mile?
15. A farmer sold 96 sheep at £2 15s. 9d. each and bought 16 cows with the money. How much did each cow cost?

ARITHMETIC A

Half an hour

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1. Add together six hundred and five, twenty-one thousand three hundred and sixty-five, five, thirty-three and seven.
2. Divide 70399 by 113.
3. Multiply 4655 by 327.
4. Subtract £21 2s. 11d. from £45 0s. 0d.
5. Divide 25 by $\frac{5}{8}$.
6. Multiply £3 6s. 5d. by 30.
7. Add together £4 6s. 1d., £2 17s. 8d. and £3 5s. 10d.
8. Find the cost of 425 pegs at 10 for 3d.
9. $2\frac{1}{4} + 1\frac{1}{2} + 3\frac{3}{4} + 1\frac{5}{8} - 2\frac{1}{4}$.
10. $3\frac{1}{3} \times 7$.
11. Express 5.75 feet in inches.
12. Subtract 324 from 11600.
13. Divide £9 7s. 5d. by 13.
14. What is $\frac{3}{4}$ of 7.2?

15. How many glasses, each holding one pint, will it take to empty a barrel containing 10 gallons 2 quarts 2 pints of water?
16. How many pieces of wood, each 20 inches long, will it take to make a fence 50 yards long?
17. A man's weight is 8 st. 5 lbs. How many lbs. is this?
18. What fraction of £2 5s. 0d. is 7s. 6d.?
19. Write down in figures a quarter of a million.
20. What is 4% of 200?
21. Express $\frac{3}{8}$ as a decimal fraction.
22. $234 + 768 + 321$.
23. 14×13 .
24. $1 \cdot 1 + 3 \cdot 42$.
25. $\frac{3}{4} \div \frac{1}{2}$.
26. $6534 - 3245$.
27. What is $\cdot 5$ of a gallon expressed in pints?
28. $104 \div 8$.
29. Express $\frac{1}{4}$ of a hundredweight in lbs.
30. How many eightpences are there in 8s. 8d.?

ARITHMETIC B*One hour*

1. A farmer wished to fence in a rectangular field whose dimensions were 50 yards by 143 yards. How many feet of wire did he require?
2. My watch, which gains 15 seconds every two hours, is set correctly at 10 a.m. on Friday. How much will it have gained by 12 a.m. Sunday?
3. If I walk 440 yards in 6 minutes, how many miles an hour am I walking?
4. If $1\frac{1}{4}$ lb. of tea costs 3s. 4d., how much will 5 lbs. cost?
5. How many cans, each holding $1\frac{1}{2}$ pints, can be filled from a vat containing 9 gallons?
6. Half of a number multiplied by 6 and then divided by 3 gives 10. What is the number?
7. If I keep a book from the library for 4 days I am charged 3d. For every additional day after 4 days I am charged 1d. What would I have to pay for three books which I take out on the Monday and return on the Friday of the next week?
8. A workman who is paid 17s. 6d. a day, loses 2 shillings a day if he is late. At the end of twelve days he is paid £10 How many times was he late?
9. I can run three times as fast as my young sister. How many seconds would it take me to run 40 yards if it takes her 18 seconds to run 30 yards?

10. A row of trees of equal distance between has a length of 200 yards. If there is a tree at each end of the row and there are 26 trees, what is the distance between the trees?
11. In a certain town there are 456 more males than females. If the number of males is 4536, how many females are there?
12. Mary, Doris and Betty together have £1 8s. 0d. Mary has 3s. more than Betty, and Betty has 2s. more than Doris. How much has each girl?
13. How many days are there from June 6th to December 4th inclusive?
14. Take away $\frac{5}{8}$ of £ from $\frac{3}{4}$ of a guinea.
15. Biscuits are 1d. each, but for every 6, I have to pay only 5d. How much will three dozen cost?
16. My watch will go 100 hours without stopping. If I wind it up at 10.3 on Wednesday morning, at what time will it stop?
17. A man divided £18 amongst three boys so that Tom got twice as much as Henry, and Harold got three times as much as Tom. How much money did each boy get?
18. In a certain year Easter Monday was on April 13th. On what day of the week was June 5th of that year?
19. A woman buys 3 lbs. of carrots and 5 lbs. of potatoes and gets $11\frac{1}{2}$ d. change from half-a-crown. If the price of carrots is 2d. a lb., what is the price of potatoes a lb?
20. Express 5s. 0d. as a decimal of £2.

ARITHMETIC A

Half an hour

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1. How many oranges at 4 for 9d. can be bought for 9 shillings?
2. How many times will 1s. 6d. go into £1 5s. 6d?
3. Add 7654 to 4321 and subtract 6664. Multiply the result by 7.
4. Divide 279868 by 37.
5. A man arrived at the station at 11.45 a.m. He was 35 minutes too early for his train. At what time was the train due to leave?
6. From 3s. $6\frac{3}{4}$ d. take 1s. $10\frac{1}{2}$ d.
7. What is $\cdot 45$ of £1 0s. 0d.?
8. $8\frac{1}{8} + 9\frac{3}{10} - 3\frac{1}{2}$.
9. If it takes a wheel 2 seconds to go round, how many times will it go round in 2 hours 25 minutes?
10. 2s. 8d. $\times 24$.
11. $\cdot 25$ of 8 $\times \cdot 75$ of 12.

12. Subtract 3 galls. 1 qt. 1 pint from 7 galls. 1 qt. 0 pints.
13. How many inches are there in 25 yards?
14. $7\frac{1}{2} \div \frac{7}{8}$.
15. A staff was to be made of five separate pieces. The length of the staff was to be 6 yds. 2 ft. 10 ins. What was the length of each piece to be?
16. A woman bought 2 lbs. of apples at 6d. a lb., 5 lbs. of potatoes at 2s. 4d. a stone, 2 ounces of yeast at 3d. an ounce, half a dozen onions at 2 for $3\frac{1}{2}$ d. How much did she spend?
17. Reduce £5 6s. 8d. to pence.
18. A man was born in 1888. How old in years was he in 1943?
19. $4375 + 876$.
20. 32×12 .
21. $1.06 + 5.5$.
22. $\frac{1}{2} + \frac{3}{4} + \frac{1}{8}$.
23. $324 - 46$.
24. $126 \div 9$.
25. What fraction of 22 is 2?
26. $2.23 - 2.04$.
27. 3.3×2.6 .
28. How many lbs. are there in $\frac{1}{7}$ of a stone
29. Subtract $\frac{3}{8}$ of 16 from $\frac{1}{8}$ of 33.
30. What is 53% of 400?

ARITHMETIC B*One hour*

1. A lady had a bag containing 150 nuts which she wished to divide among three boys, so that John would have 6 more than Peter and 9 more than David. When they had gone, she found there were 21 nuts still left in the bag. How many nuts did each boy get?
2. In mixing tea, 3 pounds of one kind are added to 9 pounds of another. If I make up a mixture using 12 pounds of the first kind, how many pounds of the second kind will I need?
3. A man bought $3\frac{1}{2}$ lbs. of butter and received 5s. 11d. change from a ten-shilling note. How much change would he have received if he had bought only $\frac{1}{2}$ lb.?
4. Write down the numbers of two figures, less than 50, which are exactly divisible by 7.
5. 9 sacks of coal are equal in weight to 10 sacks of coke. How many sacks of coke are equal to 45 sacks of coal?
6. If a train does a journey of 80 miles in 2 hours 40 minutes, how many minutes would it take it to do the same journey if the speed of the train were increased by 30 miles an hour?
7. If two men have the same amount of money, and one gives the other £15, how much less has he than the other?
8. If 12 men can live for 6 days on certain rations, how long can 8 men live on the same rations?
9. In a school $\frac{4}{9}$ of the pupils are boys. There are 125 girls. How many boys are there?

10. There are 560 seats in a theatre, divided into front and back stalls. The front seats cost half a crown and the back seats one shilling each. In a full house the receipts from the front seats are the same as those from the back. How many back seats are there in the theatre?
11. July 11th, 1939, was a Wednesday. On what day would September 6th, 1939, fall?
12. If a clock which gains 2 minutes every hour is started at 9 a.m. on a Friday morning, what time will it register at what should be 3 p.m. on the following Monday, if, in the meantime, it was wound up and corrected at 11 p.m. on the Saturday?
13. Find the total cost of the following :
- 5 dozen books at 3d. each ; 16 sheets of paper at 1s. 8d. for 10 sheets ; 15 pens at 2s. a dozen ; 25 envelopes at 3s. 6d. per 100 ; 2 gross rubbers at 1d. each.
14. If a farmer puts up 1 mile 5 furlongs 140 yards of fencing in 12 hours, how long will it take him to put up 1 mile 7 furlongs 200 yards?
15. What is the difference between $\cdot 125$ of a mile and $\cdot 5$ of a furlong expressed in yards?

ARITHMETIC A

Half an hour

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1. Express in £ s. d. 31 half-crowns.
2. 7654×29 .
3. £4 13s. 2d. + £6 8s. 11d. + £6 6s. 9d.
4. Express 12345 farthings in £ s. d.
5. Add 1 mile 3 fur., 1 fur., 4 miles 5 fur.
6. What number must be added to 1368 to make 3145?
7. If 41320 persons cross London Bridge daily, how many cross in a month of 30 days?
8. Divide 33008 by 16.
9. $\frac{1}{2}$ cwt. - $\frac{1}{8}$ cwt. + $\frac{7}{8}$ cwt. Give your answer in lbs.
10. Divide £52 16s. 0d. by 12.
11. Multiply 2 yds. 6 ins. by 10.
12. 1s. 4d. $\times 72$.
13. $9.08 + 8.65 - 6.87$.

14. Add together 3.75 cwts. and 4 lbs. Give your answer in lbs.
15. Find the cost of 18 bars of soap at $3\frac{1}{2}$ d. each, 4 lbs. of biscuits at 1s. a lb., a score of oranges at 2d. each.
16. Add two hundred and twenty to two hundred thousand and twenty two.
17. $12\frac{4}{7} \div 3\frac{1}{7}$.
18. How many $1\frac{1}{2}$ pint bottles will be required to supply a town that needs 1500 gallons of milk?
19. $5541 + 3328$.
20. $6791 - 765$.
21. 8.7×3.2 .
22. 33×16 .
23. $9.2 - 3.54$.
24. Express 11% of $1\frac{2}{3}$ hours in minutes.
25. $12\frac{1}{2} \times \frac{1}{6}$.
26. Divide 324 by 12.
27. How many 3d.'s are there in .3 of 10 shillings?
28. What fraction of 3 lbs. is 8 ozs.?
29. $11\frac{1}{4} + 3\frac{1}{6}$.
30. $16.8 \div .24$.

ARITHMETIC B

One hour

1. If I can get 50 loaves for 8s. 4d., how much will I have to pay for 15 loaves?
2. If John can run twice as fast as Henry, by how many yards would he beat Henry in a race of 100 yards?
3. Coal is bought at 3s. 0d. a cwt. and sold at £3 10s. 0d. a ton. How much profit do I make on each cwt?
4. A man wishes to share 30 shillings between two boys so that the elder gets half as much again as the younger. How much did each boy get?
5. 6 gallons of a liquid are bought for 12 shillings. At how much a pint must I sell it to make a 1d. profit on each pint?
6. I have two watches, one of which gains 3 minutes every 4 hours, whilst the other loses 2 minutes every 3 hours. If I set both watches together at 7.30 a.m. on Monday, how many minutes' difference will they show at 7.30 p.m. on Tuesday?
7. Divide £1 6s. 3d. between two people so that one gets 9s. 3d. more than the other.
8. Find the cost of 18 articles if 162 articles cost £9.
9. How far is it round a field whose dimensions are 45 ft. by 101 ft.?
10. Find the total cost of : 6 lbs. of sausage at 8d. a lb., $1\frac{1}{2}$ lb. of sugar at 3d. a lb., 3 lettuces at 1s. 4d. a dozen, a score of candlesticks at 5 for $6\frac{1}{2}$ d.

11. Add $\frac{7}{8}$ of a £ to $\frac{5}{42}$ of a guinea and divide the result by 10.
12. Express 7 lbs. as a decimal of 2 stone.
13. How fast must a motor-car travel if it has to get from one town to another in $1\frac{1}{2}$ hours, the distance between the two towns being 60 miles?
14. How many soldiers does a general need altogether for his army if he has 15,000 and asks for a fifth more?
15. A yard, 12 ft. by 6 ft., has to be concreted. I am allowed £3 12s. 0d. expenses. What is the dearest rate per square yard of concrete that I can pay, if I do not wish to make a loss?
16. What number when multiplied by itself gives 4 short of 125?
17. What is .28 of $3\frac{1}{8}$ gallons?
18. In a school of 254, there are 136 boys. How many girls are there?
19. Add $\frac{7}{8}$ of $\frac{3}{4}$ to $\frac{1}{4}$ of $\frac{1}{2}$.
20. If it takes three women 8 days to make a carpet, how long would it take 12 women to make it?

ARITHMETIC A

Half an hour

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1. Add together 142, 36, 1738 and 6410.
2. Multiply 37 by 4537.
3. From 32631 take 27436.
4. $7 \times 5\frac{1}{4}d.$
5. What is $\frac{1}{3}$ of 1 yd. 2 ft. 3 ins.?
6. Find the price of $\frac{1}{2}$ gallon of milk at $2\frac{1}{4}d.$ a pint.
7. Multiply £86 3s. 0d. by 7.
8. From £745 3s. 4d. take £23 17s. 6d.
9. How many pounds are there in 2 cwt. 15 lbs.?
10. Divide £128 11s. 4d. by 8.
11. Subtract $5\frac{2}{3}$ from $6\frac{3}{4}$.
12. If a piece of material 5 yds. 2 ft. 1 in. was cut from a roll 7 yds. 1 ft. 6 ins. in length, what length of material would be left?

13. What is the total cost of 3 dolls at $7\frac{1}{2}$ d. each, 3 books at 2s. 4d. each, and 7 pencils at $1\frac{1}{2}$ d. each?
14. $16 \times .75$.
15. $4.25 + 3.5 + 9.75 - 5.25$.
16. A man works from five minutes past eleven in the morning until a quarter past two in the afternoon. How many minutes has he been working?
17. How many yards are there in $2\frac{1}{4}$ miles?
18. $16\frac{1}{2} \div \frac{3}{4}$.
19. Divide 3016 by 13.
20. $30.1 \div 4.3$.
21. $3443 + 236 + 118$.
22. What fraction of £6 6s. is 2s.?
23. $7654 - 5557$.
24. 68×33 .
25. Express .95 as a vulgar fraction.
26. What is 80% of 655?
27. How many ounces are there in a quarter of a stone?
28. Write down in figures two and a half million.
29. $3\frac{2}{3} \times 2\frac{1}{7}$.
30. What is $\frac{1}{8}$ of £1 expressed in pence?

ARITHMETIC B

One hour

1. A man divided his land among his three sons. He gave 12 acres to the first son, $\frac{3}{8}$ of the whole to the second and $\frac{1}{2}$ to the third. How many acres was the estate?
2. A merchant buys six chests of tea, weighing 400 lbs. each, for £280 and then sells the tea at 3s. per lb. How much does he gain or lose altogether?
3. If I pay £18 in income tax, and the rate of income tax is 1s. in the £, what is my income?
4. What was the day of the month 100 days after Jan. 1st, 1926?
5. Two men set out to walk together, one walking at 5 miles an hour and the other at 6 miles an hour. How far ahead will the faster walker be after they have walked $4\frac{1}{2}$ hours?
6. Add together 3.75 cwts. and 4.25 lbs., and give the answer in pounds.
7. If the price of an article is proportional to its weight, and the price of 15 tons is £9, what is the price of 50 tons?
8. Find the least number which added to 5760 will make the sum exactly divisible by 101.
9. A certain number of cows was sold by a farmer at £38 each, and twice that number of sheep was sold at £5 each. In all, the farmer made £4800. How many cows did he sell?

10. A woman takes 222 eggs to market, hoping to sell them at 3s. a dozen. She does not sell all the eggs and returns with 4s. 3d. How many eggs did she sell?
11. A theatre is 27 yards wide. How many seats, each measuring 2 ft. 6 ins. across, can be fitted in one row, considering that a gangway of 5 ft. is to be left down the middle, and that there is to be a space of 6 ins. between each wall and the end seats?
12. A girl saves 6d. a week, and at the end of each week the girl's mother gives her half as much as she has saved, and her father doubles the total. How much will she have at the end of a fortnight?
13. Find the total cost of the following :
- 3 bags of flour, each 7 lbs., at $1\frac{1}{2}$ d. a lb.; 1 lb. spice at $1\frac{1}{2}$ d. per oz.; 4 lbs. 4 ozs. bacon at 9d. per half-pound ; $2\frac{1}{2}$ lbs. tea at 1s. 8d. per lb.
14. If a workman builds a fence in 20 days, working 7 hours a day, how many days would he have taken had he worked 10 hours a day?
15. How many yards of tweed, at 2s. 6d. per yard, should be given in exchange for 18 yards of silk at 4s. 2d. per yard?

ARITHMETIC A

Half an hour

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1. Add together 65, 897, 78 and 4320.
2. Subtract 2233 from 8765.
3. Multiply 543 by 87.
4. Divide 471 by 3.
5. $2\frac{3}{8} + 11\frac{1}{4} - 9\frac{1}{2}$.
6. $6\frac{2}{3} \times 3\frac{1}{5} \times 1\frac{1}{5}$.
7. Divide 15 by $1\frac{1}{2}$.
8. How many strides of 30 inches does a man take in walking 240 yards?
9. Divide £41 16s. 3d. by 9.
10. What is the cost of 246 articles at 1s. 6d. a dozen?
11. Add 5 hr. 18 min. 45 sec. to 1 hr. 32 min. 21 sec.
12. From a sack containing 13 stones, 6 bags, each holding 1 stone, are filled. How much is left in the sack?
13. Add £543 0s. 0d., £6 3s. $1\frac{1}{2}$ d., £32 11s. 9d.

14. Subtract $86\cdot5$ from $184\cdot4$.
15. How many inches are there in 2 yds. 1 ft. 1 in.?
16. What is the area of a square whose sides are each 11 in.?
17. A boy had twice as many sums right as wrong. If he had done 36 sums, how many were right?
18. How many steps must I make to walk to my friend's house $\frac{1}{4}$ of a mile away, if my step measures 36 in.?
19. $7\frac{1}{9} \div 3\frac{5}{9}$.
20. What is 50% of 4560?
21. How many times will 5d. go into 7s. 1d.?
22. $3\cdot01 \times \cdot6$.
23. $765 + 342 + 897$.
24. $4356 - 887$.
25. $198 \div 3\cdot6$.
26. Subtract $\frac{1}{2}$ a cwt. from 1 ton and give your answer in lbs.
27. How many pints are there in $\cdot25$ of a gallon?
28. Write down in figures one thousand five hundred and seventy-five.
29. 45×71 .
30. Add $\frac{1}{3}$ of a $\frac{1}{2}$ to a $\frac{1}{4}$ of a $\frac{1}{8}$.

ARITHMETIC B

One hour

1. If I had 150 marbles and gave one boy a fifth of them and another boy a quarter of the remainder, how many would each boy receive?
2. What is the price of 5 dozen boxes of matches if 3 boxes can be bought for $3\frac{1}{2}$ d.?
3. If five men can do the work of ten boys, how long would it take ten men to do a certain piece of work that takes 10 boys 30 days?
4. My car goes twice as fast as my brother's. We race 50 miles and it takes me 75 minutes. How many miles an hour did my brother's car travel?
5. If 3 pears cost as much as 4 apples, and 2 apples cost $3\frac{1}{2}$ d., how much will two dozen pears cost?
6. How many pieces of string, each 9 ins. long, can be cut from 3 balls, each ball containing 24 ft. of string?
7. How much would I lose if I bought 15 gallons of milk at $1\frac{1}{2}$ d. a half-pint and sold it all for 25 shillings?
8. Five times a certain number when divided by five gives three. What is that number?
9. I am twice as old as my brother. In ten years' time I shall be 38. How old is my brother now?
10. Find the cost of 6 yards of cloth at $7\frac{1}{2}$ d. a foot.
11. What change from a guinea would I get if I bought a score of apples at 5 for $7\frac{1}{2}$ d.?

12. A clock set at 10 a.m. on Monday is checked at 2 p.m. on Friday. It is found 50 minutes fast. How much did it gain per hour?
13. What is $\cdot 86$ of $2\frac{1}{2}$ score?
14. Good Friday was on April 10th in one year. What day of the week was June 5th that year?
15. A pole had 4 ft. 3 ins. cut from it and was then found to be three times longer than a smaller pole whose length was 4 ft. What was the original length of the pole?
16. What is the cost of 176 articles at 11 for a shilling?
17. What is the price of 2 cwt. if 2 quarters cost 18 shillings?
18. What is the area in square feet of a field whose dimensions are 12 yards by 20 yards?
19. In a shooting match Brown and Smith between them made 305 points, whilst Brown and Jones made 200 points between them. In all, 345 points were scored. How many points did each score?
20. Add $\frac{3}{4}$ of $\frac{1}{2}$ to $\frac{3}{8}$ of $1\frac{1}{2}$ and subtract $\frac{1}{8}$.

ARITHMETIC A

Half an hour

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1. Add two thousand and two, three hundred and thirty-two, seventeen, and one hundred and two.
2. Multiply 443 by 23.
3. Divide 1000 by 4.
4. Subtract 1001 from 5001.
5. Write down in words 4001, $20\frac{7}{8}$, 13.3, 2,000,000.
6. What is the cost of 7 pints at 11d. a quart?
7. I went to bed at 10 p.m. and got up at 7.30 a.m. the next day. How long was I in bed?
8. I had 19s. 6d. In my purse. I gave my brother 5s. 2d. and each of my two sisters 2s. 3d. How much had I left?
9. Five toys altogether cost 8s. $1\frac{1}{4}$ d. How much does each cost?
10. Add £534 11s. 9d. to £6342 0s. $11\frac{1}{4}$ d.
11. $4\frac{3}{7} + 2\frac{4}{21} + 1\frac{1}{3}$.

12. A basket holds one stone of fruit. How much will one hundred baskets hold? Give your answer in lbs.
13. Six sentries take equal turns on watch. Altogether they watch for ten hours. How long does each watch? Give your answer in minutes.
14. 6.06×4.16 .
15. $11\frac{7}{8} \div 2\frac{1}{2}$.
16. Find the cost of 6l articles at 10 for 1s. 8d.
17. Subtract 3.4 from 5.2 and multiply your answer by 6.
18. What is 25% of 13 hours?
19. $1001 + 432 + 560$.
20. $5433 - 4454$.
21. $11.13 \times .5$.
22. $198 \div 18$.
23. 65×19 .
24. What is five times 3s. 5d. expressed in pence?
25. $3.4 \div .8$.
26. $9\frac{8}{7} - 4\frac{7}{8}$.
27. What is $\frac{3}{8}$ of a gallon expressed in pints?
28. How many million are there in 11,000,000?
29. Write down the number which remains after $12\frac{1}{2}$ has been subtracted from $14\frac{1}{3}$.
30. How many $1\frac{1}{2}$ d.'s are there in a quarter of a £?

ARITHMETIC B*One hour*

1. If a train travels at 66 feet per second, how many miles an hour is it going?
2. In a cake I must put 6 ozs. of sugar and 4 ozs. of butter to every 8 ozs. of flour. How much butter and sugar must I use in baking a similar cake which needs 12 ozs. of flour?
3. If each man is allowed a space 12 ft. by 6 ft. in which to sleep, how many men can sleep in a building whose floor space dimensions are 31 yds. by 8 yds.?
4. A truck is loaded with 30 bags of coal, each bag weighing 2 cwt. A lorry is loaded with 220 sacks of sand, each weighing 30 lbs. Which load is the heavier and by how much?
5. A man starts from his home at 8.35 a.m. to go to work. It takes him 12 minutes to walk to the 'bus stand. He waits 5 minutes for a 'bus and travels for a quarter of an hour. As he gets off the 'bus he meets a friend and chats for 10 minutes. It takes him 2 minutes more to reach his work and he notices that the clock in his office reads 8.46 a.m. How many minutes is the clock fast or slow?
6. Find the two numbers nearest to 2000, one greater and one less, which will divide exactly by 46.
7. A man buys 2100 articles at the rate of 7 for a shilling, and sells them at the rate of 12 for 3 shillings. How many shillings did he gain?

8. A man who has been living for the past six years at the rate of £500 a year, finds that he is £120 in debt. At what rate a year will he have to live to pay off his debt in the next four years?
9. A boy wished to save £1 in a year. He saved at the rate of 3d. a week for the first 38 weeks. How much will he have to save a week for the rest of the year?
10. A man walks right round a square field in 6 minutes, walking at the rate of four miles an hour. What is the area of the field in square yards?
11. A man is five years older than his wife, and she is 25 years older than her son. If the son will be 26 in seven years' time, what is the father's present age?
12. A man sells 9 bags of marrows, each containing 4, for £1 7s. 0d., out of which he has to pay 1d. in each shilling to the salesman, and 1d. for each bag to the carter. How much does the man receive himself for each marrow?
13. A man does a journey in 5 hours 20 minutes at the rate of $3\frac{3}{4}$ miles an hour. How long will it take him at the rate of 4 miles an hour?
14. Sound travels at the rate of 1,500 feet per second. How far off, in miles, is a gun when its sound follows its flash after $5\frac{1}{8}$ seconds?
15. Reduce 25 lbs. 6 ozs. to the fraction of $\frac{1}{8}$ stone.

ARITHMETIC A

Half an hour

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1. From three times seventeen take twice nine.
2. How much must be added to 1s. $6\frac{1}{2}$ d. to make 19s. 4d.?
3. How many 3s. 6d. books can be bought for £2 19s. 6d.?
4. $1850 + 17 + 564$.
5. $11\frac{1}{2} \times 2\frac{2}{3}$.
6. How many four-ounce packets of sweets can be made from 20 lbs.?
7. What is the cost of a score of apples at 2 for 5d.?
8. 4.07×6.45 .
9. What must be added to 5647 to make 43289?
10. Divide 7776 by 18.
11. $4\frac{1}{4} + 3\frac{1}{2} + \frac{3}{4} - 1\frac{1}{2}$.
12. What is $\frac{3}{4}$ of a cwt. in lbs.?

13. Add 4 yds. 1 ft. 1 in., 3 yds. 11 ins., 2 ft. 1 in.
14. Multiply 6s. 11½d. by 14.
15. Express 4.25 feet in inches.
16. Find the cost of $1\frac{1}{2}$ pints of oil at 4s. 0d. a gallon.
17. $6.87 + 7.1 - 3.34$.
18. Find the cost of 60 lbs. of tea at 6d. an ounce.
19. $543 + 886 + 234$.
20. $6544 - 999$.
21. $4\frac{4}{5} \times 1\frac{1}{4}$.
22. 67×23 .
23. What is $\frac{1}{2}$ of a guinea expressed in sixpences?
24. Divide 153 by 9.
25. How many 3d. toys can be bought for $\frac{3}{4}$ of a £?
26. What is $\cdot 3$ of 340?
27. 18.7×7.3 .
28. $4\frac{5}{7} \div 3\frac{2}{3}$.
29. Express 6d. as a decimal fraction of two shillings.
30. How many lbs. are there in $\cdot 25$ of a cwt.?

ARITHMETIC B

One hour

1. A boy can cycle three times as fast as he can walk. If he reaches a place in 80 minutes on his cycle, how long would it take him to walk half that distance?
2. What number when multiplied by itself gives 121?
3. One man weighs 11 st. 10 lbs., whilst another weighs 12 st. $7\frac{1}{2}$ lbs. What is the difference in their weights in ounces?
4. What fraction of £5 is 2s. 6d.?
5. If a milkman sells 160 pints of milk for £2, what is the price of a quart?
6. I have a car whose dimensions are 6 ft. by 12 ft. How much space will I have to spare if I put it in a garage whose sides are 10 yds. by 7 yds?
7. A train started with 161 passengers. 17 left at the first stop and at the second a twelfth of the remainder left. At the third stop a sixth of the remaining total left. If 53 people kept in the train until the end of the journey, how many got out at the fourth stop, considering that the fifth stop was the last?
8. Multiply 3 lbs. 8 ozs. by 12, and give your answer in lbs.
9. How many shillings are there in five guineas and a half, plus a quarter of a florin?
10. Express 11.8 as a vulgar fraction and add it to $6\frac{7}{8}$.

11. John was born on September 5th, 1926. How many months old was he on August 5th, 1930?
12. How much will I have to pay for a hundredweight of apples if they are 3 for $3\frac{1}{2}$ d., and there are 6 in a lb.?
13. If it takes 4 women 10 days to make a rug, how long will it take 20 girls, considering that a woman works three times as fast as a girl?
14. If I buy a gross of articles for 36 shillings and sell them at 3s. 4d. a score, how much would I lose if I sold 3 score?
15. Put in the correct order of size, starting with the smallest:
 $\frac{3}{8}$, $\frac{1}{2}$, $\frac{15}{16}$, $\frac{3}{4}$.
16. Half a certain number added to one quarter of the same number makes 3. What is the number?
17. During a walk of 10 miles I walked the first 3 at 3 miles an hour, the next 5 at 4 miles an hour and the last 2 at 2 miles an hour. How long did the walk take me?
18. How many half-pints are there in 11 gallons?
19. How many steps does a man take in walking a quarter of a mile if his step measures 2 ft. 6 ins.?
20. If it costs 1d. to paint 5 square feet, how much will it cost to paint 10 yds. by 20 yds.?

ARITHMETIC A

Half an hour

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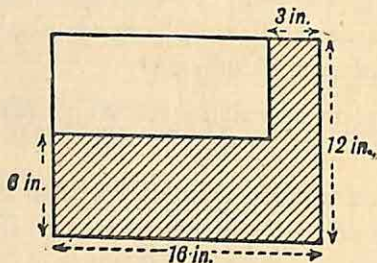
1. What is $\frac{1}{4}$ of 2.4? Give your answer as a decimal.
2. I had £16 in my safe. On Monday I put in £3 11s. 0d. more. On Tuesday and Wednesday I put in £3, on each day. On Saturday I took out £11 15s. 6d. How much had I left in the safe?
3. How many yards of hose pipe can I get for £2 18s. 1d., if it costs 3s. 5d. a yard?
4. A regiment of 240 loses a quarter of their number killed and a fifth wounded. How many men were left for battle?
5. A cyclist goes 12 miles an hour. How far does he go in 25 mins.?
6. 39×236 .
7. $8.16 \div 2.4$.
8. How many half-crowns are there in two score guineas?
9. Find the cost of a gross of pencils at 4 for 6d.

10. How many packets of sweets, each containing 7 oz., can I make up from a bag containing 1 stone?
11. Divide 578 by 17.
12. $8\frac{1}{2} + 1\frac{3}{8} + 7\frac{3}{4} - 11\frac{5}{8}$.
13. Find the cost of 5 gallons at $9\frac{1}{2}$ d. a quarter pint.
14. $1876 + 987 - 765 + 65$.
15. 1.08×3.24 .
16. Divide £12 1s. 6d. into 14 equal parts.
17. Subtract 3 cwt. 3 qr. 1 st. from 5 cwt. 2 qr. 0 st.
18. $5\frac{1}{7} \times 2\frac{1}{3}$.
19. $3425 + 4556$.
20. $3456 - 2276$.
21. $8\frac{1}{2} - 5\frac{1}{10}$.
22. How many half-pints are there in $\frac{1}{2}$ a gallon?
23. What is 70% of 7600?
24. 33×89 .
25. $4.45 + 2.348$.
26. How many minutes are there in $1\frac{3}{4}$ hours?
27. Print in figures two million one thousand and three.
28. What is $\cdot 2$ of $\frac{1}{2}$? Give your answer as a decimal.
29. Add 3s. 4d., £1 11s., $10\frac{1}{2}$ d.
30. What is $\frac{1}{8}$ of a furlong expressed in yards?

ARITHMETIC B*One hour*

1. In making 24 bottles of lemonade, each holding half a pint, I require 4 ozs. of sugar and 8 lemons. How much sugar and how many lemons do I require for making 18 such bottles?
2. If a train travels at 88 feet a second, how many miles an hour is it travelling?
3. A boy wished to save £2 in a year. He saved at the rate of 9d. a week for the first 20 weeks and at the rate of 6d. a week for the next 14 weeks. At what rate a week must he save for the rest of the year?
4. Find the number nearest to 700 which will divide exactly by 34.
5. A man is 3 years older than his wife and she is four times as old as her son. If the son will be 12 in 4 years' time, what is the present age of the father?
6. A woman wished to divide a bag of 60 apples among three girls, so that Mary got 6 more than Helen, and 5 more than Jane. There were 11 apples left in the bag. How many apples did each girl receive?
7. In mixing tea, 4 lbs. of one kind are required for every 12 lbs. of another. How many lbs. of the former kind would be needed if the mixture requires 36 lbs. of the latter kind?
8. August Bank Holiday Monday was on the 4th one year. What day of the week was October 16th that year?

9. If 16 men can live for 60 days on certain rations, how long can 12 men live on the same rations?
10. One man, whose pace measures 30 inches, sets out to walk with a woman whose pace measures 24 inches. How far in front will the man be after both have walked 120 paces?
11. If a clock which gains 3 minutes every hour is started at 10.30 a.m. on Friday morning, what time will it register at what should be 11.20 a.m. on the following Tuesday, if, in the meantime, the clock has been re-wound at midnight on the Saturday?
12. What is the area of the unshaded portion of the diagram below?



ARITHMETIC A

Half an hour

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1. $15 + 19 + 41 - 33$.
2. How many £ s. d. in 1000 halfpennies?
3. Divide 18654 by 3.
4. How many minutes are there from 10 a.m. to 11.35 p.m.?
5. What is the cost of 35 eggs at 5 for a shilling?
6. Add 745, 43, 9876 and 2.
7. Subtract $3\frac{7}{8}$ from $7\frac{3}{4}$.
8. If 4 yards of cloth cost 6s. 0d., what will 7 yards cost?
9. From £57 5s. 7d. take £8 7s. 11d.
10. Multiply $\frac{7}{8}$ by $\frac{2}{3}$.
11. Write in figures, in two ways, "six and three tenths,"
(a) as a vulgar fraction ; (b) as a decimal.
12. A room is 5 yards long and 3 yards wide. What is the total distance round the walls in inches?

13. What is the cost of 32 lbs. at 3d. an ounce?
14. A milkman sells 16 quart bottles and 32 pint bottles of milk. How many gallons does he sell?
15. $3\frac{7}{8} + 2\frac{1}{2} + 5\frac{2}{3} + 1\frac{1}{6} - 4\frac{1}{4}$.
16. A boy's step is 20 inches. How many steps does he take in walking one mile?
17. $\cdot 15 \times \cdot 25$.
18. 5s. 3d. $\times 32$.
19. $181 + 234$.
20. $6543 - 444$.
21. $12\frac{1}{2} \times 3\frac{1}{5}$.
22. $2\cdot 33 + 9\cdot 11$.
23. $1\frac{3}{4} \div 4\frac{2}{3}$.
24. What is 30% of 870?
25. What number must be added to 181 to make three less than 400?
26. $8\cdot 81 + 5\cdot 4$.
27. How many inches are there in $\cdot 25$ of a yard?
28. Write down in figures two thousand and three.
29. Express $\frac{5}{8}$ as a decimal fraction.
30. Which is greater, and by how much, $\cdot 3$ or $\frac{2}{3}$?

ARITHMETIC B*One hour*

1. The following are the ages of five boys ; find their average age : 17 yrs. 9 mths., 10 yrs. 8 mths., 13 yrs. 5 mths., 16 yrs. 3 mths., 14 yrs. 10 mths.
2. I bought a wireless for £7 5s. 0d. and sold it for £10 : what is my profit?
3. What fraction lies midway between $\frac{1}{3}$ and 1?
4. In a class there are 19 boys and 21 girls. If each boy except two has two pencils, and three girls have one pencil between them, how many pencils are there in the class?
5. There were 44 men at a meeting and $\frac{1}{6}$ of the meeting were women. How many women were there?
6. A motor-car travels at the rate of 40 miles an hour to complete a journey of 280 miles. A lorry which travels at 20 miles-an-hour starts 4 hours before the car on the same journey. By how much will the car beat the lorry?
7. A man can row a boat at 5 miles an hour. How long will it take him to row 15 miles against a 3 mile-an-hour tide?
8. What is five times two-fifths of seventy?
9. What is $\frac{2}{7}$ of 5 stones? Give your answer in lbs.
10. What is the difference in cost between 11 articles at 1s. 6d. each and 33 articles at 1s. 6d. each?

11. My watch loses 14 seconds every two hours. What time will it show at 6 p.m. on Tuesday, if it was put right at 8 a.m. on Sunday?
12. A kilometre is $\frac{5}{8}$ of a mile. How many miles are there in 48?
13. If a lorry, which weighs 13 cwt. when empty, is filled with $1\frac{1}{2}$ ton of coal and $\frac{1}{4}$ ton of coke, how much will the whole weigh? Give your answer in cwt.
14. A fishmonger buys 12 dozen fish at 3d. each and sells $\frac{3}{4}$ of his stock for 18s. The rest goes bad. How much money does he lose?
15. Put in the correct order of size, smallest first : $1\cdot1$, 1, $1\frac{1}{2}$, $1\frac{2}{5}$, $1\frac{4}{5}$, 1·6.
16. If it costs 1s. 6d. to paint 1 square yard, how much will it cost to paint 1 square foot?
17. What number when divided by 6 and multiplied by 3 gives 12?
18. 16 gallons of a liquid weigh $1\frac{1}{7}$ stone. How much does half a pint weigh?
19. How many furlongs are there in 8·25 miles?
20. How many apples are there in half a hundredweight, if 5 apples, on the average, weigh 1 lb.?

ARITHMETIC A

Half an hour

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1. A milkman sells 895 half-pints. How many gallons, etc., does he sell?
2. Divide £67 11s. 2d. by 11.
3. A clock ticks once a second. How many times does it tick between 11.30 a.m. and 2.46 p.m.?
4. Add 342 and 6785.
5. $8\frac{3}{4} + \frac{7}{8} + 7\frac{1}{2} - 3\frac{1}{8}$.
6. How many pounds are there in 1 cwt. 1 stone?
7. A draper sells 5 pieces of cloth, each 5 yds. 2 ft. 6 ins. long, from a roll 80 yards long. How much cloth has he left?
8. From 65478 take 43254.
9. $4\frac{1}{2} - 3\frac{7}{8} + 1\frac{1}{4} \times 1\frac{3}{8}$.
10. 1.54×3.03 .
11. £10 11s. 4d. - £9 19s. 11d.

12. Divide a cake weighing 24 lbs. Into 16 equal parts. What is the weight of each part?
13. How many farthings are there in a guinea?
14. What number between 100 and 110 can be divided by 17 without leaving a remainder?
15. What is the present age in years of a man born in 1898?
16. How many times does 7s. 6d. divide into £3 15s. 0d.?
17. Add four florins to five half-crowns and subtract twenty-one pence. Give your answer in half-crowns.
18. $16\frac{1}{2} \div 6\frac{3}{4}$.
19. $321 + 765 + 1187$.
20. $654 - 327$.
21. $\frac{7}{8} \times \frac{3}{4} \times \frac{1}{2}$.
22. $6.1 + 2.3 + 4.15$
23. 5.1×3.06 .
24. How many times will 8d. divide into 10s. 8d.?
25. Express the figure 11,954,001 in writing
26. 65×32 .
27. $4\frac{1}{12} \div 2\frac{1}{3}$.
28. What fraction of 120 is 5?
29. $5\frac{1}{2} - 3\frac{5}{8}$.
30. How many pence are there in $\frac{1}{3}$ of £5?

ARITHMETIC B*One hour*

1. Each step in a staircase measures 3 ft. by $1\frac{1}{2}$ ft. How many steps are there if the total floor space of the steps is 72 square feet?
2. If I buy a gross of articles and sell them at a loss of £1 4s. 0d., how much per article did I pay for them if I sold them for £2 8s. 0d.?
3. Two cars set out towards each other from two points 460 miles apart. One car starts at 11 a.m. and travels at 50 miles an hour, whilst the other starts at 1 p.m. and travels until they both meet at 4 p.m. What was the speed in miles per hour of the car that set out at 1 p.m.?
4. A woman took her ducks and geese to market and found that she got twice as much for her 18 geese as for 20 ducks. For ducks and geese she got £9. What was the price of a duck?
5. A man can row a boat at 4 miles an hour. If he is rowing against a 2 mile-an-hour current, how long will it take him to row 12 miles?
6. Tom is twice as old as Mary, and she is 5 years older than Fred. If Fred is 8, how old will Tom be when Fred is 16?
7. The average height of a class of boys is 5 ft. 2 in. If there are 30 boys in the class and two boys each 4 ft. 0 in. leave, what is the average height of the remaining boys?

8. If one man can work twice as quickly as one boy, how long would it take 5 men and two boys to do a piece of work that one man can do in 12 days?
9. If I buy a box of matches I am charged $1\frac{1}{2}$ d., but if I buy boxes in bulk I can get a gross for 12s. How much would I save if I bought five gross in bulk?
10. I gave away $\frac{1}{4}$ of my savings to one boy and $\frac{1}{6}$ to another boy. I find I have given away 45 shillings. How much were my original savings?
11. What two numbers will divide exactly into 15 and 28 respectively and, when added together, will give 9?
12. Three football teams in a competition score the following number of points : Midville and Slocombe together make 43 ; Midville and Wickford together make 41. Together, all three teams make 56 points. How many points did each team make?
13. A boy had 150 marbles. He gave away $\frac{1}{3}$ to his friend and $\frac{2}{5}$ of the remainder to his cousin. How many had he left for himself?
14. If the wages of 19 men is altogether £95 19s. 0d., how much will 11 men earn?
15. $\frac{3}{8}$ of a pole is above the water and $\frac{3}{16}$ of it is in the earth under the water. How much of the pole is actually in the water?

ARITHMETIC A

Half an hour

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1. What is the difference between three times 1s. 6d. and five times 1s. 7d.?
2. In a class of 33, there are seven more boys than girls. How many girls are there?
3. $17 + 1654 + 87 + 543 - 654$.
4. $5\frac{3}{4} + 6\frac{1}{5} + 8\frac{3}{10} - 3\frac{2}{5}$.
5. Reduce 1 ton 5 cwt. to lbs.
6. £7 11s. 2d. - £3 13s. $4\frac{1}{2}$ d.
7. A purse contains £1 12s. 6d. in half-crowns and sixpences. If there are 9 half-crowns in it, how many sixpences are there?
8. A room is 7 yds. long and 3 yds. wide. How far is it round the walls of the room? Give your answer in feet.
9. What is $\cdot 125$ of £56 16s. 8d.?
10. What is 10% of 500?

11. By what must I divide 300 to get 25?
12. 17 books each contain 342 pages. How many pages are there altogether?
13. $1\frac{7}{8} \times 9\frac{3}{5}$.
14. Add £543 11s. 9½d. to £78 15s. 11d.
15. What is $\frac{5}{8}$ of 4 stone?
16. Divide 3 hours by 5. Give your answer in seconds.
17. Add 1.04, 65, 6.5 and 104.
18. 45 lbs. is $\frac{3}{8}$ of a certain load. What is the full load?
19. What is .34 of 500?
20. Add 13s. 2½d. to half of five guineas.
21. $432 + 456 + 876$.
22. Add $11\frac{1}{2}$, 1.1, 11 and 101, and express your answer as a vulgar fraction.
23. $3456 - 786$.
24. 51×32 .
25. How many inches are there in $3\frac{1}{2}$ feet?
26. Write down as a decimal fraction $7\frac{1}{20}$.
27. What percentage of 500 is 25?
28. $333 \div 9$.
29. $\frac{3}{8} + \frac{3}{4} + 1\frac{1}{5}$.
30. How many shillings are there in .5 of £7?

ARITHMETIC B

One hour

1. A man sells 13 quart bottles, 5 gallon bottles and 16 pint bottles of a liquid. How many half-pints did he sell?
2. In a class of 51 children there are 7 more boys than girls. How many girls are there?
3. A purse contains £1 6s. in half-crowns and sixpences. If there are five half-crowns, how many sixpences are there?
4. What are $11\frac{3}{8}$ cwt. expressed in stones?
5. A field is 43 yds. by 32 yds. How far is it round three sides of the field, not counting one of the shorter sides?
6. What is the weight in stones and lbs. of 150 parcels weighing 3 lbs. each?
7. A man spent £51 5s. 0d. in buying 20 tons of coal for his factory. He bought 15 tons of this from one merchant at £2 10s. 0d. a ton. What was the price per ton he paid for the other 5 tons?
8. A man takes 60 steps a minute. If the length of his step is 2 feet, how long will it take him to walk a mile?
9. What was the age in years in 1944 of a man born in 1878?
10. Find the least number which added to 4791 will make the result divisible by 97.
11. A man spends £60 every three months. What does he save yearly out of an annual income of £360?

12. A certain number of pennies is more than £5 in value and less than £5 12s., and can be divided equally among 153 persons. What is the amount each receives?
13. If a man walking at the rate of 4 miles an hour can travel a certain distance in 3 hrs. 30 mins., in what time could he run the distance at 7 miles an hour?
14. A bill of £9 12s. 0d. has to be paid by several persons in equal shares. If three of them together pay 16s., how many are there to share the cost?
15. How many times can a vessel holding $2\frac{1}{8}$ pints be filled from a container holding 56 gallons?
16. What is £5.35 expressed in £ s. d.?
17. Find the sum of the first 5 figures that are divisible by 5.
18. How many hours are there between 10 a.m., April 24th, and 9 a.m., May 11th, of the same year?
19. A collar costs 1s. $1\frac{1}{2}$ d. How many can I get for £2 16s. 3d.?
20. What is $\cdot 15$ of £2 multiplied by $3\frac{1}{2}$?

ARITHMETIC A

Half an hour

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1. I buy two dozen of each of three kinds of postage stamp ($\frac{1}{2}$ d., 2d., $2\frac{1}{2}$ d.). How much do I spend in all?
2. Multiply 8 yds. 2 ft. by 13.
3. A man divided £202 10s. equally amongst 8 boys. How much did each receive?
4. Subtract 1,007,876 from 3,864,343.
5. At 11.43 a.m. I promised a man that I would meet him in three hours' time. I was 23 minutes late and then had to wait 13 minutes for him. At what time did we meet?
6. How many hours are there from 9 a.m. on Friday to 4 p.m. on the following Monday?
7. How many inches are there in 11 yds. 2 ft. 11 ins.?
8. 3 dozen boxes of matches cost 4s. 6d. How much does a box cost?
9. How many quarter pints are there in a quart?
10. Add 171, 786, 11, 324.

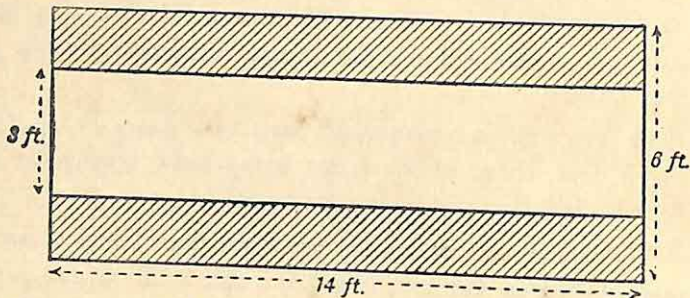
11. Add a half of five eighths to a half of a quarter.
12. The rent of my house is £5 a month. How much is it a year?
13. 23.78×6.9 .
14. Half of a number is 3 less than 15. What is the number?
15. $4\frac{1}{2} + 3\frac{1}{3} - 2 + 5\frac{1}{6}$.
16. If it takes 24 minutes to walk 1 mile, how long will it take to walk 220 yards?
17. $34.32 \div 3.3$.
18. What is the cost of 35 articles at 10 for 7s.?
19. $543 + 654$.
20. $945 - 676$.
21. 65×18 .
22. $\frac{1}{2} + \frac{7}{8} + 2\frac{3}{4}$.
23. $7.7 + 2.45$.
24. Divide 117 by 9.
25. What percentage of 6 feet 8 inches is 8 inches?
26. How much is .25 of 2 hours expressed in minutes?
27. $5.61 - 4.32$.
28. $16s. 3d. \div 5$.
29. Write down as a decimal fraction $5\frac{1}{8}$.
30. Express 115d. in shillings and a fraction of a shilling.

ARITHMETIC B

One hour

1. Two boxes each contain 18 quarter-pound packets of tea. Another box contains 14 half-pound packets. Find the total weight of tea and boxes, if each box when empty weighs $1\frac{1}{2}$ lb.
2. Tom has 3s. 6d., John 4s. 6d. and William 7s. 0d. They agree to share the expenses of a feast equally. After the feast they have 5s. left between them. How much ought each boy to have left?
3. A train travelling at the average rate of 72 miles in 2 hours 40 minutes takes 11 hours 20 minutes in travelling from London to Carlisle. What is the distance between the two cities?
4. If 18 men build a house in 20 days, how many will build it in 15 days, three of the latter being equal to four of the former days.
5. If 4 lbs. of tea can be bought for as much as 5 lbs. of coffee, how much tea can be bought for £20 if 70 lbs. of coffee can be bought for £7 0s. 0d.?
6. If a 8d. loaf weighs $3\frac{1}{2}$ lbs., how many ounces of bread can I buy for 3d.?
7. A merchant buys 16 cwt. of butter at £3 per cwt., and 44 cwt. at £4 per cwt. At what rate per cwt. must he sell it so as to make £16 on the whole?
8. A body of troops consisted of 500 men after engaging in two battles. In the first battle it lost one man in every

- 25, and in the second $\frac{1}{8}$ of the remainder. Of how many men did the body originally consist?
9. If 22 yards of material cost £3 6s. 0d., how much change will I get from five guineas if I buy 26 yards at the same rate?
10. Find the total cost of the following bill : 3 doz. pairs of gloves at 2s. a pair, 1 gross of buttons at 4d. per dozen, 60 yds. of braid at 1s. 9d. per dozen yards.
11. From a rod a yard long, portions, each $1\frac{1}{4}$ of an inch, are cut off. How many such portions can be cut off, and what will be the length of the remaining piece?
12. Find the area of the shaded portion of the following diagram :



13. A man travels $\frac{1}{2}$ of his journey on horseback, $\frac{1}{9}$ of it in a motor-car, and $\frac{5}{18}$ on a bicycle. He walks the remainder of the journey which is $\frac{1}{4}$ of a mile. How long was his total journey?
14. What is the area in square yards of a field whose dimensions are 112 yards by 1 furlong?
15. If a line which is $4\frac{1}{2}$ inches long is $\frac{1}{8}$ of a longer line, what is the length of the longer line?

ARITHMETIC A

Half an hour

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1. Write in figures ten million one thousand and eight.
2. 234×67 .
3. Divide £51 8s. 8d. by 8.
4. A pound is $\frac{5}{11}$ of a kilogram. How many pounds are there in 77 kilograms?
5. What is 0.2 of ten shillings?
6. Find the cost of 48 articles at 6s. 8d. each.
7. What is the area in square feet of a garden whose sides are each 4 yards?
8. What is 75% of 2 cwt.? Give your answer in lbs.
9. How many shillings is $\frac{3}{20}$ of £6?
10. A car runs 4 miles on a pint of petrol. How many pints would it use on a journey of 120 miles?
11. 6.8×2.35 .
12. $34\frac{1}{6} + 7\frac{3}{15} + 3\frac{1}{10} - 2\frac{1}{4}$.

13. How often does $\frac{1}{4}$ of $\frac{1}{4}$ go into $\frac{1}{2}$ of $\frac{1}{2}$?
14. A train travels at the rate of 100 feet a second. How many feet does it travel in one minute?
15. Add £6 11s. 8d. to £7 18s. 11d.
16. $6453 - 3427$.
17. How many minutes are there in twelve and a quarter hours?
18. Express £13 4s. 7d. in shillings and fractions of a shilling.
19. $543 + 298 + 56$.
20. $8 \cdot 18 + 5 \cdot 43$.
21. $8 \cdot 8 - 4 \cdot 17$.
22. $55 \times \cdot 1$.
23. How many furlongs are there in 25.5 miles?
24. Which is the greater, and by how much, $\frac{1}{2}$ of 10s. or three florins?
25. $5\frac{1}{2} \times 1\frac{1}{8}$.
26. 58×13 .
27. Express 4d. as a vulgar fraction of 10 shillings.
28. $476 \div 14$.
29. $13 \div 2 \cdot 5$.
30. What is 45% of 1100?

ARITHMETIC B*One hour*

1. When a train travels at an average rate of 40 miles an hour, a certain journey takes 4 hours. How long will it take for this journey, if, for half the distance, this speed must be reduced to an average of 20 miles an hour?
2. Cards measuring 4 inches by 5 inches are priced at 3s. 4d. a packet. How much must be paid for a packet of cards which measure 3 inches by 5 inches?
3. Mary has 2d. a week less pocket money than Helen but 2d. a week more than Margaret. They have 4s. a week between them. How much does each girl have?
4. If £1 is worth 25.05 francs, how many francs is 10s. worth?
5. Find the value of 7 articles at £40 12s. each.
6. Express $\frac{1}{12}$ of £3 16s. 0d. as the fraction of $\frac{1}{8}$ of £4 15s. 0d.
7. Find the value of 3 cwt. at £20 per ton.
8. Find the total cost of : 7 lbs. of lamb at 1s. 1d. a lb., 17 lbs. 8 ozs. beef at 1s. a lb., 5 lbs. suet at $7\frac{1}{2}$ d. a lb.
9. What number multiplied by 49 will give the same number as 21 multiplied by 14?
10. A person buys 25 articles for £63 6s. 0d. and sells them for £79 11s. 0d. How much profit does he make on each article?

11. If 16 gallons cost £6 8s. 0d., how much will 1 pint cost?
12. How much money will 12 men earn in 2 days if 32 men earn £64?
13. If a train of 7 first-class carriages will contain 126 passengers, and a third-class carriage will contain twice as many as a first, how many passengers can be conveyed in a train consisting of 3 first and 12 third-class carriages?
14. What is $\cdot 5$ of half a crown?
15. Find the number of hours between 11 a.m. on June 5th and 9 a.m. on 14th of June.
16. How much would a reel of wire weigh which contains 100 yards at 2 ounces a yard, if the reel itself weighs $2\frac{1}{2}$ lbs.?
17. A man gives away $\frac{1}{5}$ of his estate and sells $\frac{1}{2}$ of the remainder. What proportion of the whole has he left?
18. One man's pace is 2 ft. and another's 3 ft. If they set off walking together in step, how far will they walk before they are in step again?
19. Arrange in order, smallest first : $\frac{1}{2}$, 6%, $\frac{4}{5}$, $\cdot 1$.
20. What number besides 137 will divide exactly into 11371?

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ANSWERS FOR ALL FOUR SUBJECTS

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